TEACHER LEARNING IN AN INQUIRY COMMUNITY: A CASE STUDY AT A PRIVATE HIGHER EDUCATION INSTITUTION IN MALAYSIA

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ABSTRACT

The purpose of this study was to view the feasibility of an alternative staff development, the teacher inquiry community (TIC) as a worthwhile effort to improve university teachers' practice. The study, conducted at a Malaysian private higher education, aimed at understanding situated processes within the TIC, factors that influenced these processes, and the effects of participation on university teachers and their practice.

The study adopted the qualitative case study approach and employed the situated learning theory as its theoretical framework. Data for the study was collected through participant observation, analysis of audio-recorded interactions and classroom artifacts, researcher-generated documents, and interviews. The TIC project was carried out in three consecutive cycles within a period of one year. Eight English language university teachers took part in the first cycle, ten in the second and nine in the last cycle. Throughout the three cycles, thirty weekly meetings were held to understand and solve various instructional problems shared by the participants. A protocol was employed to guide interactions and discussions within the TIC.

The study finds that the processes within the TIC were complex. Various activities were identified occurring at group and individual levels. Group-level activities involving collective reflection, inquiry, and negotiation of knowledge shared, promoted the generation of a wide variety of knowledge which was then processed by individual teachers through reflection and/or experimentation on practice. Processes identified were affected by various factors within the TIC (the protocol, community members, tools, instructional dilemmas shared); individual teachers (attitude, beliefs, teaching and learning experiences, confidence level, external circumstances, biological factors, skills to reflect on practice) and teachers' workplace (time, administrative work, shared/sole responsibilities, teaching allocation, system imposed). As a result, teachers' participation led to varied effects on teachers and their practice.

The study finds that the TIC has a potential to be a worthwhile staff development as teachers' participation improved their pedagogical knowledge and understanding of their own practice and general aspects concerning students, teaching and learning. Most importantly, some teachers made adjustments to their beliefs about students, teaching and learning and ways they taught certain language skills and their handling of problematic students within their classrooms.

The study extends understanding on the complex processes occurring within the TIC; the needs for sustainability and continuity in teacher learning; the supportive functions of various tools and varied input on teacher learning; the characteristics of people that would make TIC work, and how different contextual factors affected teacher learning and outcomes.

The findings of this study have some implications for implementations of TIC within higher education. Formations of TICs in higher education requires revision of policies governing the scope of staff development; the reward and evaluation system; and the definition of success. The findings of the study also have implications on the recruitment and new responsibilities for staff developers in managing and facilitating learning in a TIC, recruitment of community members, and management of TICs within higher education institutions.

PEMBELAJARAN GURU DI DALAM KOMUNITI INKUIRI:
SATU KAJIAN KES DI INSTITUSI PENGAJIAN TINGGI SWASTA
DI MALAYSIA

ABSTRAK

Kajian ini bertujuan untuk mengenalpasti potensi pembangunan kakitangan alternatif, komuniti inkuiri guru (TIC) sebagai usaha untuk memperbaiki amalan pengajaran guru-guru di universiti. Kajian yang dijalankan di pendidikan tinggi swasta di Malaysia bertujuan untuk memahami proses-proses pembelajaran guru di dalam TIC, faktor-faktor yang mempengaruhi proses-proses ini, dan kesan penyertaan kepada guru-guru dan amalan pengajaran mereka.

Kajian ini mengunakan pendekatan kajian kes kualitatif dan menggunakan teori pembelajaran bersituasi sebagai kerangka teori. Dapatan kajian ini dikumpul melalui pemerhatian peserta, analisis rakaman interaksi (audio) dan artifak dari kelas, dokumen penyelidik, dan temu bual. Projek TIC telah dijalankan dalam tiga kitaran berturut-turut dalam tempoh satu tahun. Lapan orang guru bahasa Inggeris telah mengambil bahagian dalam pusingan pertama, sepuluh dalam kitaran kedua dan sembilan dalam pusingan terakhir. Sepanjang tiga kitaran, tiga puluh mesyuarat mingguan telah diadakan untuk memahami dan menyelesaikan pelbagai masalah pengajaran yang dikongsi peserta. Protokol telah digunapakai untuk membimbing interaksi dan perbincangan dalam TIC.

Kajian ini mendapati bahawa proses-proses yang dikenalpasti di dalam TIC adalah kompleks. Pelbagai aktiviti telah dikenalpasti berlaku pada peringkat kumpulan dan individu. Aktiviti-aktiviti kumpulan yang melibatkan inkuiri, refleksi dan rundingan, menggalakkan penjanaan maklumat. Maklumat yang terhasil diproses oleh guru-guru secara individu melalui proses refleksi dan eksperimen di dalam kelas. Proses-proses yang dikenal pasti dipengaruhi oleh pelbagai faktor dalam TIC (protokol, ahli-ahli komuniti, alat-alat, masalah-masalah yang dikongsi guru); guru-guru sendiri (sikap,

kepercayaan, tahap keyakinan, pengalaman mengajar dan belajar, keadaan luaran, factor biologi guru, kemahiran refleksi) dan tempat kerja guru (masa, kerja-kerja pentadbiran, peruntukan pengajaran, tanggungjawab bersama/tunggal, sistem yang digunapakai). Disebabkan oleh faktor-faktor ini, hasil penyertaan guru membawa kesan yang berbeza-beza kepada guru-guru dan amalan pengajaran mereka. Walaupunbegitu, kajian ini mendapati bahawa TIC merupakan satu pembangunan kakitangan yang berpotensi untuk memberi menafaat kepada guru kerana penyertaan guru meningkatan pengetahuan pedagogi dan pemahaman terhadap amalan pengajaran mereka sendiri dan aspek-aspek umum mengenai pelajar, pengajaran dan pembelajaran. Sesetengah guru juga membuat pengubahsuaian kepada kepercayaan mereka tentang pelajar, pengajaran, dan pembelajaran, cara sesuatu kemahiran bahasa diajar, dan cara pengendalian pelajar bermasalah dan pelajar yang menghadapi masalah dalam pembelajaran.

Kajian ini juga menambah pemahaman kepada proses kompleks yang berlaku di dalam TIC; kepentingan kemampanan dan kesinambungan di dalam pembelajaran guru; kepentingan alat-alat sokongan dan kepentingan kepelbagaian input untuk menyokong pembelajaran guru; ciri-ciri peserta yang menyokong proses- proses TIC; dan pengaruh faktor –faktor di dalam konteks yang berbeza ke atas kemampanan, pembelajaran guru dan kesan kepada guru-guru dan pengajaran di dalam kelas.

Hasil kajian ini mempunyai beberapa implikasi ke atas perlaksanaan TIC di institusi pengajian tinggi. Pembentukan TIC di pendidikan tinggi memerlukan semakan kepada dasar-dasar yang mengawal skop pembangunan kakitangan; ganjaran dan sistem penilaian; dan takrif kejayaan. Hasil kajian juga memberi implikasi kepada lantikan pemaju kakitangan dan skop tanggungjawab pemaju kakitangan di dalam menyokong pembelajaran guru di dalam TIC; pengambilan ahli-ahli komuniti; dan pengurusan TIC di institusi-institusi pengajian tinggi.

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CHAPTER 1: INTRODUCTION

This chapter contains the background of the study, statement of the problem, purpose, theoretical and conceptual framework, and significance of the study.

1.1 Background of the Study

The quality of teaching and learning in higher education institutions continues to be a universal issue. However, it is felt more intensely in developing countries such as Malaysia as it strives to internationalize its higher education by becoming an educational hub of global standard by 2020. Currently, Malaysia is "the world's 11th exporter of educational services with over 90,000 international students from over 100 nations" studying at various educational institutions in the country ("*Poised to become a global education hub*", 2012). To secure Malaysia's position as an educational hub of excellence in the region, under the stewardship of the Higher Education Ministry, various initiatives have been carried out at both national, regional, and institution levels to strengthen Malaysia's competitiveness in the global market (Malaysia Ministry of Higher Education (MOHE), 2012). One significant initiative taken in order to remain competitive within a challenging, diverse market is to improve students' learning experiences through the assurance of quality teaching within Malaysian university classrooms.

1.1.1 Initiatives at the National Level

At the national level, to improve teaching practices in Malaysian higher education, assurance of quality teaching and learning was enlisted as one of the seven strategic thrusts in the National Higher Education Strategic Plans 2007-2020, emphasizing the preparation of teaching resources, revamping of university programs and systems, and re-

engineering of the learning processes within university classrooms (MQA, 2007). The execution of these strategies is the responsibility of the Malaysian Qualifications Agency, (MQA) which is tasked with ensuring quality Malaysian higher education. The MQA monitors and evaluates university programs based on various codes of practice which govern institutional vision, mission, and learning outcome strategies; curriculum design and delivery; student selection and support services; student assessment; academic staff; educational resources; programme monitoring and review; leadership, governance, and administration; and continual quality improvement (MQA, 2007). The stringent quality control carried out by the MQA provides vital terms of reference and guidelines to ensure high standards for Malaysian universities. However, what remains to be seen is how the MQA ensures that quality teaching is taking place within Malaysian university classrooms. The closest MQA comes to ensuring quality teaching is through assessment of the quality of faculty in terms of recruitment, qualifications, and training (NAHERI, 2004). However, evaluation of the actual practice of faculty at the classroom level is affected by a serious lack of manpower within the MQA, limiting its ability to ensure that minimum standards of teaching quality are met (Fernandez-Chung, 2009). As a result, "the quality of teaching is left to the individual institutions" (Fernandez-Chung, 2009, p. 2).

1.1.2 Initiatives at Institutional Level

One prominent effort carried out by individual higher education institutions in Malaysia to ensure quality education is implementing a Quality Management System (QMS) such as ISO 9001 certification (Tan, Hasnah, Sofri, Noornina, Goh, & Mohamed Azlan, 2011). Such certification guarantees the documentation and standardization of procedures created and implemented in an organization (M. Sadiq, Rajadurai, & Nor Azlin, 2003; Tan, Hasnah, Sofri, Noornina, Goh, & Mohamed Azlan, 2011). According

to Khalid and Kamisan (2008), QMS ensures that teaching and learning processes consistently meet specified requirements. Obtaining an ISO certification, in other words, could improve teaching quality as it ensures that it meets creditable standards and set quality (Hariri, Khalid, Mohd. Shoki, & Zainab, 2003). Various public government-funded (e.g., Universiti Putra Malaysia (UPM)) and private universities (e.g., Universiti Kuala Lumpur (UniKL), Taylor's University, and Universiti Tenaga Nasional (UNITEN)) have obtained this certification.

Such certification guarantees standardization in managing various processes within higher education. M. Sadiq, Rajadurai, and Nor Azlin (2003) affirm that an ISO certification improves communication between departments, particularly on managerial matters, and often results in a more organized learning environment for students as delivery of programs and course materials are stringently standardized. However, ISO certification does not clearly guarantee quality teaching. A comparative study conducted by Suhaiza, Junaimah, Rosly, and Ng (2006) on service quality between ISO-certified and Non ISO-certified colleges proved this. The study showed that students in ISO-certified colleges generally perceived the service quality in their respective learning organizations more positively than students in non ISO-certified colleges. However, the study found that there was no significant difference between ISO and non-ISO certified colleges in four aspects of service quality: the teaching staff, learning process, support system, and resources (Suhaiza, Junaimah, Rosly, & Ng, 2006). This confirms Fernandez-Chung's contention that ISO certification, in some ways, helps improve the quality of administrative services but "it cannot ensure quality teaching, as it does not accredit teachers and teaching standard" (2009, p. 2). In fact, M. Sadiq, Rajadurai, and Nor Azlin (2003) found that such certification could restrict teaching style and creativity due to its emphasis on standardization. The potential of accreditation and certification as a catalyst to quality teaching, in other words, remains indeterminate.

Another effort taken at the individual university level to improve the teaching quality of academic staff was through university teachers' participation in in-service workshops, courses, and training. Many Malaysian public universities, through directives from and collaborations with the Malaysian Ministry of Higher Education (MOHE), prepare various in-service training and courses to improve their academic staff's practice (Azam, Mohaida, & Zainurin, 2013). Most of these staff development programs are attended by new academic staff and are aimed at upgrading their knowledge and skills in various aspects of teaching and learning (Azam, Mohaida, & Zainurin, 2013). Studies examining the effects of these programs on teachers' skills, knowledge, and practice have been generally scarce. The only documented account found was reported by Azam and Zainurin (2011). The quantitative study which was conducted on 100 new academic staff from four public universities explored participants' perceptions of the Basic Teaching Methodology Course (BTMC) and the "extent to which the academic staff utilizes the knowledge and skills learned" (Azam & Zainurin, 2011, p. 125). The BTMC was carried out in three different 'packages' and consisted of face-to-face instructions, a practicum, assignments, and self-study components. Participants reported benefitting from the sessions, particularly in acquiring new pedagogical knowledge. However, the study found that the effects on participants' teaching was "not substantial," mainly because many of the participants found that the teaching approaches introduced did not match their beliefs on the best practices for effective teaching (Azam & Zainurin, 2011, p. 133). According to Tillema and Westhuizen (2006) and Young (2008), participants' beliefs, assumptions, constraints, and needs should be acknowledged in the process of inducing teacher change. The content of such staff development programmes like the BTMC, however, is often imposed on the participants by staff developers who are affiliated with other entities within the universities (Azam & Zainurin, 2011), which could mean that they are unaware of the academic staff's beliefs about teaching and learning or their immediate needs and

challenges. Furthermore, many staff development efforts are conceived through a deficit model where content of workshops, courses, or in-service training is comprised of skills and knowledge that academic staff are thought to lack. According to D'Andrea and Gosling (2005), the practice of listing professional knowledge and skills to be mastered gives teachers a false idea that the accumulated "set of propositions" are "believed to be true" as "a repertoire of identifiable skills" needed by teachers, and often this leads to surface learning about teaching (p. 20). What is worse is that teachers who are trained using the deficit model may become satisfied with the status quo since they are "less likely to question prevailing norms of teaching and learning" (Grossman, 1992, p. 174). In other words, taking part in such staff development, like the BTMC, despite its objective of improving teaching, could have a reversed effect on teachers and their teaching. The failure of the BTMC in achieving observable outcomes is thus understandable.

In their concluding remarks, Azam and Zainurin (2011) suggest that future professional development in Malaysian universities should enhance teachers' capacity for "critical thinking and continuous reflection on teaching and learning" and promote "experiential, critical, self-directed learning, and long-life learning among the academicians" (p. 134). To improve the quality of teaching in higher education in Malaysia, in other words, a new form of staff development initiative should be attempted.

1.1.3 Emerging Trends in Teacher Professional Development

Suggestions made by Azam and Zainurin (2011) echo Biggs' (2003) views on effective staff development. According to Biggs (2003), to be effective, staff development should provide a platform for teachers to reflect critically on actions where the focus is not only on addressing the technicalities of teaching but on critically analysing the strengths and weaknesses of teaching and making informed decisions about practice. Cochran-Smith and Lytle (2001) argue that for staff development to work, emphasis

should not be given to skills training but to "culture building," where learning is sustained "over a period of time rather than in isolated moments in time" (pp. 45-46). In this form of staff development, teacher learning revolves "around collaborative problem solving" where teachers work together to address issues of common instructional concern, which facilitates identification of both causes and solutions to problems (Hawley & Valli, 1999, p. 141). Within these collaborations, teachers are given opportunities to reflect on practice and collectively "question ineffective routines, examine new conceptions of teaching and learning and engage effectively in supporting one another's professional growth" (Little, 2002, p. 917).

The new notion of staff development which is widely practiced in schools has resulted in the formation of teacher learning communities within universities. The University of Southern Queensland, Australia, is one such university which employs the concept of community-based workplace learning as part of its academic staff professional development. Currently, there are 20 communities of practice formed across its campus for its academic staff who are "seeking to share and develop practice and build personal and professional knowledge and expertise" (University of Southern Queensland, 2013). In higher education in the United States of America, academic staff form learning communities "explore ways to develop professional scholarship in relation to individual disciplines" (Bell et al., 2006, p. 3). In the United Kingdom, the Institute of Learning and Teaching (ILT), an initiative of the Dearing Report, spurs the formation of communities of practice within British universities which focus on stimulating innovation and supporting continuous professional development of academic staff (Brown, Bucklow, & Clark, 2002, p. 164).

According to Laksov, Mann, and Dahigren (2008), if a community of practice is established around teaching, university teachers will be able to evaluate their teaching, invent new ways of organizing teaching and learning, reflect on their practice, and share

their new ways of supporting teaching with others within the community. It also encourages participants to share their knowledge in a non-judgemental environment "that is supportive of individual/group change, development and enhancement" (D'Andrea & Gosling, 2005, p. 47). Such an approach to staff development is given the nod by many prominent experts in higher education who highlight the need for universities to be learning organizations that support continuing professional development among academic staff through the formation of learning communities within universities (D'Andrea & Gosling, 2005; Partington & Stainton, 2003; Walsh & Kahn, 2010; Walker, 2001). This is a form of learning on the job, which, according to Knight (2002), is a very effective way to learn about teaching.

There are a handful of reported studies in the literature which explored the works of university teachers to improve teaching through participation in various communities of practice (Coronel, Carrasco, Fernández, & González, 2003; Cox, 2003; Laksov, Mann, & Dahigren, 2008; Roblin & Margalef, 2013). These studies share valuable information on the physical formation of learning communities at universities, the process of learning within collaborative endeavours, and the rewards gained as a result of participating in such communities. Despite this, community-based staff development in the context of higher education is very much underexplored. Studies on community-based staff development were, in fact, found to be more aggressively done at school level (Bondy & Williamson, 2009; Ermeling, 2010; Ingvarson, Meiers & Beavis, 2005; Lamb, Philipp, Jacobs, & Schappelle, 2009; Miller, 2008). These studies found that there is an apparent established relationship between the professional community and the reported level of impact on knowledge and practice (Bondy & Williamson, 2009; Ermeling, 2010; Ingvarson, Meiers & Beavis, 2005; Lamb, Philipp, Jacobs, & Schappelle, 2009; Miller, 2008).

1.2 Statement of the Problem

Current initiatives by MOHE with the implementation of various strategic thrusts under the National Higher Education Strategic Plans have been found to be appropriate but have been argued to be inadequate at ensuring quality teaching within Malaysian university classrooms. Initiatives carried out at the university level through the attainment of ISO certification, on the other hand, have shown mixed results as such efforts ensure standardization relating to administrative matters and content delivery but do not guarantee quality teaching. Furthermore, the outcome of individual faculties' efforts at improving tertiary teaching through traditional methods of staff development, i.e., in-service workshops or training, has not been encouraging. It is thus unarguable that, to improve teaching within Malaysian universities, there is an urgent need to introduce an alternative form of staff development which considers the current perspective on staff development where university teachers become members of a teacher community to collaborate, examine, reflect, and carry out inquiries on their practice. There is a valid need to study and explore the learning processes occurring within teacher communities in higher education institutions, factors affecting these teachers' learning, and relationships between participation in such programs and their impact on teachers' pedagogical knowledge and teaching. Such studies would provide a better understanding of the possibility of a teacher community set up within a Malaysian higher education context triggering teacher change and improving tertiary practice.

Such studies are also vital because they would bridge gaps in research as there have been no prior accounts nor authentic studies in the literature which reported on community-based staff development in Malaysian universities. This is apart from the general commentary in the media and the political and academic leaders' rhetorical claims about the need to revamp the methods of upgrading the quality and capability of the nation's teaching faculty. In addition, these studies are very much needed in view of the

rampant growth of the Malaysian education industry in reinventing itself and boosting its competitive stance. Studies on teacher learning within teacher communities situated within higher education institutions may also be considered timely and valuable because of the scarcity of similar studies in the wider context of higher education. Even though there have been many studies exploring community-based staff development within schools, they were not sufficiently informative about teacher learning within higher education institutions' teacher communities. This is due to significant contextual differences. These inevitably prompted the commencement of this study.

1.3 Purpose of the Study

The purpose of this study was threefold: to address the research gap mentioned above, to provide vital information for other teacher communities formed in higher education, and to explore the feasibility and benefits of community-based staff development programs as represented by a teacher inquiry community (TIC) at Pintar International University (PIU), a private higher education institution in Malaysia. The outcome of this study may inform professional development practice (Creswell, 2003) at PIU, which could lead to changes in the ways professional development is structured for its academic staff.

This study was shaped by the situated learning theory, conceptualized as a socially-constructed process situated within a setting that is governed by interactions, tools, and contexts of learning (Brown, Collins, & Duguid, 1989). It was also shaped by the inquiry community model of teacher learning, which moots the conception that learning occurs when teachers collaborate to problematize, inquire and reflect on their teaching practice, and question their beliefs and assumptions about teaching and learning (Cochran-Smith & Lytle, 2001).

1.4 Objectives of the Study

To explore the feasibility and the potential of the TIC in changing and improving university teachers' practice, the study had four main objectives: 1) to understand the processes that university teachers underwent in generating and processing knowledge shared within the TIC; 2) to understand the impact of tools on knowledge generation and processes identified within the TIC; 3) to discover factors that promoted and hindered the processes identified; and 4) to understand how university teachers' participation in the TIC affected them and their practice.

1.5 Research Questions

This study was framed and designed on the basis of the following major questions:

1) How was knowledge generated within the teacher inquiry community and processed by the university teachers?
2) How did tools impact knowledge generation and processing within the teacher inquiry community?
3) What were the factors that hinder or promote the processes identified within the teacher inquiry community?
4) How did university teachers' participation in the teacher inquiry community affect teachers and their practice?

The following parts of this chapter describe the theoretical framework of this study, which is the situated learning theory, and the process of teacher learning within the TIC.

1.6 Theoretical Framework of the Study

The situated learning model propounded by Lave and Wenger (1991) was adopted for the theoretical framework of the present study because of its direct applicability to a

community of practice, which was the case with the teachers taking part in the TIC. The dynamics prescribed in the model were compatible with the setup and the function of the community.

According to Daniels (2001, p. 69), an initial constructivist approach to learning ignores the influence of context on learning, excludes the "societal and cultural" impact on learning, and only provides a partial view of the link between context and cognition. There has been, however, a recent growth in the number of approaches developed which try to provide an understanding of development of cognition in context. One such approach is to view learning as situated cognition (Daniels, 2001). According to Brown, Collins and Duguid (1989), recent investigations into learning have challenged the notion of knowledge as a transferable entity that can be separated from the context in which it is learned. The contemporary perspective on learning views knowledge as inseparable from the activity in which it is developed and deployed and thus is from a perspective that "learning and cognition is viewed as fundamentally situated" (Brown, Collins & Duguid, 1989). In other words, knowledge is not seen as independent of context but significantly situated within a context since knowledge is perceived as a co-product of the activity, context, and culture in which it is developed (Brown, Collins, & Duguid, 1989). Such a notion of learning is also supported by Anderson, Reder, and Simon (1996, p. 5), who posit that "what is learned is specific to the situation in which it is learned." In other words, "the situation in which a person learns, become a fundamental part of what is learned" (Putnam & Borko, 2000, p. 4). As stated by Dewey (1938), experience is "due to the transaction between an individual with the environment that he is in." From the viewpoint of situated learning, cognition is situated within physical and social context, is social in nature, and is distributed across "the individual, other persons and various artifacts such as physical and symbolic tools" (Putnam & Borko, 2000, p. 5). This is supported by Hansman (2001), who states that situated learning pays close attention to

the "interaction, intersection among people, tools and context within a learning situation." According to Hansman and Wilson (1998), viewing learning from a situative perspective enables one to develop "an understanding of how tools and social interactions structure cognition" and helps one to understand adult cognition as "socially interactive, activity-based, and tool-dependent."

From a situated learning perspective, context shapes learning. The shift towards sociocultural aspects of learning places significant emphasis on providing contexts that supply specific types of knowledge (Putnam & Borko, 2000) since teachers' learning, from a sociocultural perspective, relies heavily on "the physical and social contexts," as the contexts in which learning takes place govern what is learnt (Putnam & Borko, 2000, p. 4). Thus, when one is trying to understand teacher learning in a community, it is essential that the context in which teachers' learning takes place is closely scrutinized as "different ideas of what is appropriate learning activity produce different results" (Brown, Collins, & Duguid, 1989, p. 32). In seeking to understand the occasions and conditions for the use of tools one would, for example, require some understanding of the context of activities of each community that uses the tools since this is framed by the way in which members of the community perceive the world (Brown, Collins, & Duguid, 1989, p. 33). Furthermore, analysing the context of teacher learning will cast light on a very important area of research, as put forward by Putnam and Borko (2000), which is on the types of contexts that teachers' learning experiences should be situated in. The study thus scrutinizes the contexts of learning within the teacher inquiry community to understand how they impact teacher learning and influence the transfer of what is learnt into practice.

To understand situated learning, focusing on the interactions that take place within a setting is vital since, from this perspective, knowledge of the social world is "socially mediated" and learning from this perspective is via "a process of becoming a member of a sustained community" (Lave, 1991, p. 65). From a situative perspective, learning goes

beyond the extent of the individual and "arises in shared activities" (Daniels, 2001). Learning is, in other words, regarded as social (Putnam & Borko, 2000). Learning is perceived as a social activity as it "occurs with other people" (Wilson, 1993, p. 6) and comprises "the products of the interactions" with groups of people over time (Soltis, 1981, cited in Putnam & Borko, 2000, p. 5). Through interactions with members of a community, an individual has access to "ideas, theories and concepts" which are then appropriated and personalized in an effort to make sense of experiences (Putnam & Borko, 2000). This notion is supported by Brown, Collins and Duguid (1989), who state that it is the impact of interactions that one carries out with others that helps to shape and change one's understanding of the world and the tools used to obtain that understanding. In other words, the interactions that take place between members of a community govern what is learnt and how new knowledge is acquired. As stated by Putnam and Borko (2000, p. 5), the interactions that one is involved in with people within one's environments are "major determinants of both what is learnt and how learning takes place." To understand situated teacher learning in a teacher inquiry community, it is vital that the interactions that take place within the community are analyzed and examined. This is essential, since the interactions that take place within the community can affect learning in a positive or a negative way, depending on the nature and the quality of the interactions that occur. By analysing interactions, the researcher may better understand how teacher learning is shaped by the interaction process of meaning negotiation and construction through participation in the community.

When analysing learning from the perspective of situated cognition, another element in a setting that can shape learning is the tools that are available within the setting. Learning and knowing, from a situative perspective, are structured by the interactions taking place between people in tool-dependent environments (Lave, 1988). Lave's (1988) ethnographic study identifying the different ways adults use the mathematical equations

taught in a 'school' setting in the real world of grocery-store shopping, reveals that the tools that exist in that context shape the way mathematical equations are used to solve mathematical problems. In other words, the tools that exist within a learning context can shape and influence what is learnt and how new knowledge is learnt. As stated by Putnam and Borko (2000, p. 10) many of the tools that exist within a context "do not merely enhance cognition, they transform it." According to them, tools help distribute cognition across people and they help expand the "system's capacity and innovation." In a learning context, tools "can only be fully understood through use," and the use of tools can change the user's view of the world and may lead to users adopting "the belief system of the culture in which they are used" (Brown, Collins, & Duguid, 1989, p. 33). According to Brown, Collins and Duguid (1989, p. 33), "people who use tools actively rather than acquire them, by contrast, build an increasingly rich implicit understanding of the world in which they use the tools and of the tools themselves." In other words, the way these tools are utilized and the frequency of their use will, to a certain extent, affect learning. It is thus important to examine the availability of tools within a teacher learning community and to view the effects of the utilization of these tools on teachers' situated learning within the community. By doing so, the researcher may gain valuable information about the types of tools that will have the most profound effects on teachers' learning and their influence on the kinds of knowledge generated and the ways learning occurs within the community.

Employing the situated learning framework, the interactions between teachers, the contexts in which the learning processes take place, and the tools found within the TIC and their influences on learning processes are analyzed to make sense of the teacher learning processes within the TIC, the contextual elements that impact the processes, and the impact of teachers' participation on teachers and their practice.

1.7 The Process of Teacher Learning in an Inquiry Community

According to Zellermayer and Tabak (2006), 'inquiry community' is a concept used to describe a "facilitated group of people who work together on a consistent basis through inquiry on matters that are important to them" (p. 34). Teachers in an inquiry community work over a period of time "with goal-oriented persistence" to "understand/resolve a dilemma and discover specific cause-effect findings about teaching and learning" (Emerling, 2010, p, 378). Like any other form of teacher professional development, the main objective of an inquiry community focuses on enhancing or improving teachers' instructional practice (Yorks, 2005).

The conception of teacher learning in an inquiry community emphasises on "how teachers learn from asking questions and finding questions together" (Levine, 2010, p. 111). An inquiry community takes inquiry as its stance, and its mechanism of learning involves, through the application of an adopted instrument or a protocol (Levine, 2010), a systematic inquiry (Ball & Cohen, 1999; Cochran-Smith & Lytle, 1999, p. 279) into the dilemmas, practice, "current arrangement of schooling… and teachers' individual and collective roles in bringing about change" (Cochran-Smith & Lytle, 1999), and "decisions… and kinds of knowledge that comprised the act of teaching" (Levine, 2010, p. 113). When inquiry is pivotal to teacher learning, teachers' main focus is not on finding the right answers but more on exploring alternatives, possibilities, and ways of reasoning, and creating opportunities to study and analyze teaching and learning systematically (Ball & Cohen, 1999).

Inquiry often results in reflection (Levine, 2010), which leads to the disclosure of teachers' pedagogical constructs that govern their teaching, and their beliefs and assumptions that they have about teaching, learning, and students. Inquiry, in other words, triggers knowledge generation. According to Cochran-Smith and Lytle (1999), the type of knowledge that is generated within a community that takes inquiry as its stance is

knowledge-of-practice: local knowledge that is "constructed in the context of use, intimately connected to the knower… and inevitably the process of theorizing" (p. 273). In other words, inquiries lead to the sharing and the generation of knowledge that is "situation-specific to themselves and their relationship with their professional and personal settings" (Yorks, 2005, p.1222).

Within an inquiry community, teachers are not only the generators of knowledge but are also the "agentive constructors" of knowledge (Fairbanks & LaGrone, 2006). This occurs as they "jointly create and revise theoretical constructs that guide their work" (Levine, 2010, p. 113) to answer questions about their and others' practice and also to find solutions to or gain a better understanding of instructional dilemmas. In this instance, knowledge is jointly constructed through a collective process of "conjoining their understandings" (Cochran-Smith & Lytle, 1999, p. 280), critically questioning and forming new frameworks/perspectives. Within an inquiry community, however, knowledge is not only constructed at the community level, it is also constructed at the individual teachers' level. When teachers take part in collective discussions on practice, they construct knowledge about their own teaching practice by bringing knowledge and theories constructed within the community or formed by others "into the context of their daily teaching practices" (So, 2013, p. 194). Through this process, teachers "identify discrepancies between theories and practice, challenge common routines" (Cochran-Smith & Lytle, 1999, p. 293), "reconsider what is taken for granted," challenge schools and classroom structures, and construct and deconstruct interpretive frameworks (Cochran-Smith & Lytle, 1999, p. 279).

It is through this complex process that teachers' tacit knowledge becomes explicit to others, and teachers "identify elements of their practice that are unexamined" (Levine, 2010, p.113). As teachers' practice, beliefs, assumptions, and theoretical constructs that govern their teaching become explicit to others, tensions and conflicts between members

become inevitable. Roblin and Margalef (2013) conceptualized these conflicts as "interpersonal dilemmas," which, according to Achinstein (2002), need to be embraced, queried, and reflected on in order to gain deeper understandings of the nature, causes, and effects of the conflicts. Through this complex process, "alternative viewpoints" emerge (Cochran-Smith & Lytle, 1999, p. 293), and this is important to the process of teacher learning within the TIC as varying viewpoints present "a fresh perspective" on teachers' professional work, which is vital to trigger teacher change (So, 2013, p. 189). This is because they "provide teachers with the opportunity to examine and challenge their beliefs to explore alternatives for change and growth" (Roblin & Margalef, 2013, p.19).

The inquiry stance adopted by inquiry communities creates a "dialectical relationship" between the knowledge that is generated and the actions of teachers (So, 2013) since what is generated through the process of collaborative inquiry "influences and is influenced" by teachers' practice (p. 189). Teachers' involvement in an inquiry community could influence what takes place in their classrooms, and, to some extent, it could lead to a practical outcome (Tillema & Westhuizen, 2006). In an inquiry community, teachers' inquiries and quests for resolution are data-driven processes (Ball & Cohen, 1999). To understand or find solutions to instructional dilemmas, teachers are required to "experiment, study and investigate" them (Tillema & Westhuizen, 2006, p. 55). Teachers in an inquiry community would utilize a variety of evidence of practice and data "to conduct their study of a problem and learn to rely on this evidence to better understand the problem, as well as to inform their decisions about what is working and what actions need to be tried next" (Emerling, 2010, p. 378). When evidence of practice or data is shared with the community, more knowledge is generated and shared among community members. In making sense of new evidence or data, teachers inquire and collaborate to construct new meanings, knowledge, and understandings, and challenge previous knowledge or assumptions. This process often results in the emergence of more

conflicts, tensions and varying viewpoints. This cycle of co-construction of knowledge, according to Orland-Barak and Tillema (2007), strengthens teachers' involvement in "the process and their ability to negotiate meaning and make informed choices" (p. 6). This results in "changed perspectives on knowledge and knowing" (Orland-Barak & Tillema, 2007, p. 5), improvement in knowledge and skills, heightened awareness of various aspects of teaching and learning (Yorks, 2005), and, most importantly, improvement in teachers' interpretive power and capacity to handle dilemmas in practice and learn from their analysis of them (Ball & Cohen, 1999). In other words, the powerful effects of inquiry can result in teachers being "knowledge productive," a condition that can be achieved if teachers are willing to change their perspectives, work towards common goals, and have adequate problem understanding to enable them to contribute constructively in order to construct knowledge within the community (Tillema & Westhuizen, 2006, p. 51).

The following part of this chapter explores the various reasons why the current study is significant.

1.8 Significance of the Study

The present study is significant as it fulfils an immediate need for alternative staff development within the context of higher education in Malaysia. This study, which explored the feasibility of community-based staff development, i.e., the teacher inquiry community, uncovered the possibilities, constraints, and impact of such staff development within a local context. Knowledge emerging from the study could inform various parties, for example, the Ministry of Higher Education, staff developers within universities and university teachers in general on the potential of the TIC in triggering improvement in teachers' practice and in providing valuable guidelines and frameworks for implementations of similar endeavours within local universities.

Even though many past studies have been conducted to understand various aspects of teacher learning within teacher communities (e.g., Bondy & Williamson, 2009; Buczynski & Hansen, 2010; Crockett, 2002; Ermeling, 2010; Franke, Carpenter, Levi, & Fennema, 2001; Grossman, Wineburg, & Woolworth, 2001; Ingvarson, Meiers, & Beavis, 2005; Lamb, Philipp, Jacobs, & Schappelle, 2009; Little, 2002; Miller, 2008; Sinnema, Sewell, & Milligan, 2011; So, 2013), these studies analyzed efforts that took place in schools. Such studies may have uncovered vital information on the mechanisms, impacts and contextual factors affecting teacher learning within teacher communities within schools; however, due to significant contextual differences, they may not have been adequate to address the complexity and accurately inform similar efforts taking place within universities. There is thus a need for more research on community-based staff development in higher education.

Furthermore, even though many experts on higher education (e.g., D'Andrea & Gosling, 2005; Knight, 2002; Nicholls, 2001; Partington & Stainton, 2003, Walsh & Kahn, 2010; and Walker, 2001) have theorized on the importance of community-based staff development in improving the quality of teaching in higher education, only a handful of studies reported the accounts of teachers' work in various communities of practice within universities (e.g., Blanton & Stylianou, 2009; Coronel, Carrasco, Fernández, & González, 2003; Cox, 2003; Laksov, Mann, & Dahigren, 2008; Roblin & Margalef, 2013). More studies on teacher communities within universities are thus needed to provide a more accurate picture, and thus better guidelines to inform various parties involved when forming and facilitating community-based staff development, like the TIC, within universities. They may supply university staff developers with vital information on ways to form, manage and organize learning taking place within teacher communities. They would also provide university staff developers and relevant decision-makers with vital information on factors that foster or hinder learning in such staff

development. With the information provided by this study, relevant parties within higher education institutions will be aware of the appropriate measures to take to create a conducive learning environment for teachers within teacher communities. Therefore, the current study is both significant and timely.

Thirdly, the study is significant because it bridges gaps in the knowledge base on various aspects of teacher learning within teacher communities. Experts in the field have identified various gaps in knowledge when addressing teacher learning within teacher communities. Little (2002), for example, highlights the lack of research to understand the effects of interactions and the dynamics of professional community as a resource for teacher learning and innovations in teaching. Kazemi and Hubbard (2008) address the inadequate exploration of the types of knowledge teachers develop about "subject matters, students' thinking and practice as they engage in collective analysis around common objects of inquiry" (p. 435) and the link between 'knowledge' and 'knowing' in order to understand the impact of professional development on teaching practice. Kazemi and Hubbard (2008) also highlight the lack of research on understanding the "multidirectional influences" between teachers' participation in professional development for improvement of teachers' classroom practice (p. 428). This is echoed by Opfer and Pedder (2011, p. 377) who found that most of the writing on teacher professional learning focuses on "specific activities, processes, or programs in isolation from the complex teaching and learning environments." Ermeling (2010), on the other hand, addresses the limited evidence in research on the effects of teacher inquiry on teacher practice, and Crockett (2002) identifies a particular gap in knowledge on the kinds of activities within TICs that generate inquiry. The current study provides vital information that bridges some of the knowledge gaps highlighted above. Employing a situative lens, the present study scrutinized teachers' interactions to understand teacher learning within the TIC. This provides information on the effects of interactions as a

resource of teacher learning and the types of knowledge generated within a teacher community when teachers take part in collaborative inquiry on practice. The study also analyzed tools identified within the TIC and various other contextual factors to understand their impact on learning, teachers, and their practice. This provides vital knowledge that could extend the understanding of "multidirectional influences" on the processes of teacher learning and the impact of teachers' participation within professional development on them and their practice. Lastly, as the research analyzed teacher learning within a TIC in which inquiry is pivotal to teacher learning, some knowledge on the effects of inquiry on teachers' interactions and learning emerged. This study thus bridges the gaps in knowledge highlighted by both Crockett (2002) and Ermeling (2010).

Lastly, this study is significant because of its emphasis on teacher learning and teaching in higher education. Most research conducted in higher education focuses mainly on university teachers' expertise or content discipline; however, most of such research has, in fact, "little or no connection to teaching" (Nicholls, 2001, p. 3). This view is supported by D'Andrea and Gosling (2005), who state that, in higher education, "learnedness is not always valued, and where it is, relates exclusively to subject knowledge and subject-based research" (p. 192). In the context of higher education in Malaysia, it is sadly true that, generally, research and publication in subject specific areas are encouraged, but minimal emphasis is placed on research conducted on improving teaching. As stated by Shad Saleem (2012), in Malaysian higher education, "teaching is being neglected" (p. 34) This is further proven by the serious scarcity of studies reported in the literature that explore efforts undertaken to improve teaching within Malaysian higher education institutions. This study is thus significant as its findings may influence relevant decision- or policy-makers in Malaysia in providing support for similar staff development efforts within Malaysian universities and in increasing funds for research

into teaching and teacher learning as an important step towards improving the teaching quality of academic staff in higher education in Malaysia.

1.9 Definition of Terms

The definitions of terms used in this study are listed below to provide explanation on what the researcher means when she refers to certain important concepts in this thesis. These definitions have been adapted from various sources to suit the context of this study.

Professional Development

The term 'professional development' in this study refers to any form of systematic effort to bring about changes in the instructional practices of teachers (Guskey, 2002). In a teacher professional development program, teachers take part in activities that are designed to enhance their professional knowledge, skills and attitudes" in order to improve "the learning of students" (Guskey, 2000).

Community

'Community' is clarified as "individuals coming together in some sense for some common purpose or goal," and is comprised of those who strive towards "a shared and common understanding" (Cassidy et al., 2008, p. 219). In order to achieve a common goal or to gain a deeper understanding of an issue or a problem, each member of the community would not strive to achieve a general consensus but would strive to achieve a collective understanding by confronting conflicts and addressing differences among the members of the community (Grossman, Wineburg, & Woolworth, 2001, p. 980).

Collaboration

'Collaboration' reflects a scenario of a group of people who work together to examine problems, discuss issues, identify strategies, and resolve problems through collegial and

collective dialogues (Nicholls, 1997). In a collaborative effort, members of a group would utilize available tools to stimulate discussion and identify alternative approaches to solving problems (Nicholls, 1997, p. 8).

Inquiry Community

An 'inquiry community' is a form of community of practice in which a group of teachers come together to collaborate and problematize teaching in order to find measurable solutions in the process of solving instructional problems in their practice (Cochran-Smith & Lytle, 1999). The process of teacher learning within an inquiry community is mechanistic in nature (Levine, 2010). It is grounded within cycles of systematic inquiries (Ball & Cohen, 1999) and reflection on practice (Levine, 2010), a process which is supported by the use of tools, instruments, or protocols (Ball & Cohen, 1999; Levine, 2010; Little, 2001; Miller, 2008). Collegial interaction and a supportive environment are considered vital for its success (Nelson, Deuel, Slavit, & Kennedy, 2010).

Interactions

'Interactions' refer to any form of verbal exchange taking place within the inquiry community on issues or dilemmas shared which reflect orientation towards inquiry and reflection on experience to solve problems in instructional practice.

Context

'Context' refers to both physical and social contexts (Putnam & Borko, 2000) in which the inquiry community situates its learning. Physical context refers to the context of learning within a PIU which is governed by organizational and situational factors. The social context refers to the context of learning within the inquiry community which is shaped by members' interactions and tools (e.g., the protocol utilized to guide inquiry).

Tools

'Tools' refer to things or materials (written cases of teaching, video-recording of teaching, teachers' journals, and examples of students' work) found or used within the TIC or by the participants of the TIC as means to make knowledge and practice transparent to others and as means to assist teacher learning within the group.

Knowledge

'Knowledge' is an entity that is shared or distributed across a community or resources (Brown, Collins, & Diguid, 1989).

Instructional Dilemmas

'Instructional dilemmas' are problems, concerns, or issues that teachers have encountered or experienced or are facing in their current practice which affect the process of teaching and students' learning.

Knowledge Generation in a TIC

In a TIC, the process of 'knowledge generation' is triggered by inquiry and the sharing of evidence of practice or data (Ball & Cohen, 1999) and is supported by collective and individual reflection on discussions on instructional dilemmas.

Knowledge Construction in a TIC

The process of 'knowledge construction' in a TIC occurs when teachers "jointly create and revise theoretical constructs that guide their work" (Levine, 2010, p. 113), and critically question issues raised or dilemmas shared. Knowledge construction also occurs when individual teachers bring knowledge and theories constructed within the community or formed by others "into the context of their daily teaching practices" (So, 2013, p. 194).

1.10 Chapter Summary

This chapter provides an overview of the background to the study and addresses the problems which existed within the local setting pertaining to professional development in higher education and the inadequacy of the current practice and literature in terms of exploring teacher learning, particularly within community-based efforts in higher education. This chapter also discusses the study's purpose statement, research questions, and significance, elaborates on the theoretical framework that frames the study, and conceptualizes the process of teacher learning in a TIC.

The following chapter reviews the literature relating to the study. It puts forward the main concepts of collaborative teacher learning and teacher communities, particularly those related to teacher learning in an inquiry community. It also discusses the contextual factors within a setting that can either support or hinder learning and professional development, particularly within a community-based staff development like the TIC.

CHAPTER 2: REVIEW OF LITERATURE

The purpose of this literature review is to provide a framework that supports the exploration of this study, which is to discover the potential of a TIC in fostering teacher learning and changes to teachers and their practice and to understand various factors that impact learning within the TIC. The literature review is divided into three sections. The first section details concepts of three important elements: 'collaboration,' 'community,' 'teacher learning,' and 'teacher communities.' This provides a framework to assist further discussion and understanding of the second section, which entails description of the processes of teacher learning in a TIC. The third section covers factors that impact teacher learning in professional development (particularly addressing the form that takes place within a community) and knowledge transfer from the community to teachers' practice.

It needs to be noted that as the conception of community of practice and the inquiry community is more robustly embraced, practiced, and researched in schools, most of the ideas, concepts, and research findings explored and discussed in this thesis are school-related. Due to this, the term 'teacher' is abundantly used, instead of 'university teacher.' The application of knowledge, ideas, and concepts derived from school-related staff development efforts is assumed to be applicable to staff development efforts taking place in universities since most staff development, regardless of contexts, are formed and geared towards improving teaching and students' learning experiences.

2.1 Collaborative Effort and Teacher Learning

To improve teaching, Ball and Cohen (1999) highlight the need for teachers to take part in professional development efforts which enable teachers to become "serious learners in and around practice, rather than amassing strategies and activities" (p. 4). Cohen and Ball's call for professional development to take a different approach to ensure

effective teacher learning is supported by many who also believe that effective professional development needs to involve teachers playing the role of learners (Clark & Fluro-Ruane, 2001; Darling-Hammond & McLaughlin, 1995; Lawler, 2003; Lieberman, 1995). What is also emphasised in the current approach to professional development is the need to make teacher learning a collaborative effort (Borko, 2004; Brancato, 2003; Clark & Florio-Ruane, 2001; Ball & Cohen, 1999; Hawley & Valli, 1999; King, 2010; MacKenzie, 2010; Walker, 2001). Teacher collaborations help teachers overcome the problems of working in isolation, gain access to greater resources, help 'maintain' momentum, refresh initiatives with new ideas and energies, and promote "cross-fertilization of ideas and enthusiasm" (Walsh & Kahn, 2010, p. 5). Collaborative efforts also promote professional conversations involving "descriptions of practice, attention to evidence, and examination of alternative interpretation" (Feiman-Nemser, 2001, p. 1043). This helps teachers to connect course requirements to field experiences, classroom management, and pedagogy (Miller, 2008, p. 78), and gain "new understandings" (Feiman-Nemser, 2001, p. 1043). This is most probably because, when teachers work collaboratively, personal and professional experience are made public, and this enables the opportunity for members to "re-vision and re-interpret" experience from others' points of view (McCotter, 2001, p. 702). Collaborative teacher learning may also foster conversations that provide social, emotional and practical support where teachers "empathize with each other's predicaments, offer advice and support each other" (Miller, 2008, p. 78). Such support helps empower teachers to make effective professional decisions that may positively shape their instructional practice.

To understand how collaboration can impact teacher learning, the meaning of '*collaboration*' needs to be clearly understood. '*Collaboration'* is defined by Tillema and Westhuizen (2006) as "a relationship that involves 'receptivity of other', one that pays attention to the other's voice" (p. 54). Dillenbourg (1999,) explains that a situation is

termed ‘collaborative’ if “peers are more or less at the same level, can perform the same actions, have a common goal and work together” (p. 7). To further illustrate the meaning of ‘collaboration’ Nicholls (1997) compares it with ‘cooperation’ and metaphorically relates it to the situation of two people working together at “a computer on a joint project—one computer, one mouse and a problem to be resolved” (p. 8). ‘Cooperation,’ according to Nicholls (1997), relates to a situation where two people examine a problem and attempt to solve the problem individually with minimum interactions on the issues concerning the problem but sharing the computer to get this done. According to Nicholls (1997), in such partnership, “social interactions are maintained at a distance and only for practical convenience, as well as to maintain the appearance of working together” (p. 8). ‘Collaboration,’ on the other hand, is exemplified by a scenario of two people “examining the problem together, discussing issues, identifying strategies and possible solutions” and, through dialogues, collectively attempt to find the means of solving the problem identified (Nicholls, 1997, p. 8). In such ‘partnership,’ the dialogue leads to “joint ownership of the project,” and the computer becomes a tool to stimulate discussion and to identify alternative approaches to problem solution (Nicholls, 1997, p. 8). In such a scenario, each person tests out his or her ideas on the computer and each other, providing opportunities for “joint and individual development” (Nicholls, 1997, p. 8).

Collaboration within the context of teacher learning evokes an image of teachers putting their heads together to achieve a common goal through collegial interactions among group members. Learning is located within interactions with others, and what sets ‘collaboration’ apart from ‘cooperation’ is the amount of interaction it allows for learning to take place. This scenario is different from teachers cooperating in learning because, when teachers collaborate, they learn from each other and with each other through interactions as a platform for teacher learning. Another significant difference is the way tools are utilized. When teachers cooperate with other, tools found within the learning

environment are shared but not jointly used to solve problems. This is unlike teachers who collaborate to solve problems. In such situations, tools are used as a platform for joint problem solving and for testing of individual and collective hypotheses.

The next part of the literature review conceptualizes 'community' and 'teacher communities.' This will then be followed by the concept of 'teacher learning.' It is important that the concepts of 'community,' 'teacher communities' and 'teacher learning' are conceptualized before description of an 'inquiry community' is provided. This provides a basis of comparison with other teacher communities reported in literature and the kind of teacher learning that is generated by an inquiry community. It also provides a ground for presenting reasons why the study conducted focuses on advancing university teacher learning through an inquiry community and not through other forms of teacher communities.

2.2 Conceptualizing 'Community'

According to Cassidy et al. (2008), the notion of 'community' that distinguishes it from other groups within society is clarified as "individuals coming together in some sense for some common purpose or goal" (p. 219). Cassidy et al. (2008, p. 219) posit that a 'community' strives towards "a shared and common understanding" in which, through the process of doing so, they will utilize and arrive at "a set of terms, languages, jargons, and understanding" which will further influence the formation of the community.

To understand the concept of 'community' in terms of a teacher community that supports collaborative teacher learning, a comparison is made to a concept referred to by Grossman, Wineburg, and Woolworth (2001) as 'pseudocommunity.' A 'pseudocommunity' is a group of individuals who come together to "play community"—"they act as if they are already a community that shares values and common beliefs" (Grossman, Wineburg, & Woolworth, 2001, p. 955). It is important among members of a

'pseudocommunity' to "behave as if [they] all agree" by suppressing conflicts and maintaining "interactional collegiality" by projecting an image of "surface friendliness" and ensuring that one never intrudes on other's personal space (p. 955). According to Grossman, Wineburg, and Woolworth (2001, p. 995), in such a community, it is against the rules to "challenge others or press too hard for clarification," which leads to "the illusion of consensus." What differentiates a 'pseudocommunity' from a community of people who are genuinely collaborating to achieve a common goal is the "authentic sense of shared communal space" as within a 'pseudocommunity' it is basically just "individuals interacting with other individuals" (Grossman et al., 2001, p. 956). In other words, a 'community' comprises of a group of people who do not avoid conflicts but face and regard them as resources for learning. This supports the notion of '*community'* by Cassidy et al. (2008) who describe it as a group of people working together but not necessarily in agreement with one another to strive towards an understanding. A 'community,' in other words, will honestly work toward improvement by challenging their own beliefs, assumptions, and those that are different from theirs. It will not strive towards achieving general consensus on every problem or issues raised but strives to achieve a collective understanding, and this is done by confronting conflicts and differences within the community. As mentioned by Grossman, Wineburg, and Woolworth (2001), for a community to succeed, it must "pivot on the tension between the rights and responsibilities of membership," and for a community to be sustained, members must be aware of their rights to express their opinions honestly and are consistently, being "willing to engage in critique in order to further collective understanding" (p. 980). In other words, when forming a community of teachers to improve teaching, it is important that conflicts are addressed and problematic practice is made explicit and used as a platform for inquiries and reflection so that concrete actions can be planned as a way to improve instructional practice.

Before a thorough discussion on the process of teacher learning in an inquiry community is provided, it is important that the different concepts of teacher learning are discussed. This is because a different concept of teacher learning will put forward different understanding and processes of how teacher learning is to be organized and conducted.

2.3 Conceptualizing Teacher Learning

According to Cochran-Smith and Lytle (1999), there are three prominent concepts of teacher learning that influence different attempts to foster learning among teachers: knowledge-*for*-practice, knowledge-*in*-practice, and knowledge-*of*-practice.

2.3.1 Knowledge-*for*-Practice

The first conception of teacher learning refers to an understanding of the relationship of knowledge and practice as knowledge-for-practice. This concept of teacher learning, according to Cochran-Smith and Lytle (1999), centres on the idea that knowing more can lead to more effective practice. Knowledge for teaching, in other words, consists of formal knowledge (pedagogical content knowledge, instructional strategies, pedagogy) (Cochran-Smith & Lytle, 1999), which, according to Nicholls (2001, p. 39), relates to one's knowledge base that is "dominated by the abstract, analytical approach" that is often associated with academic research and one's specialization. The expert teacher, within this concept of teacher learning, is viewed as one who knows knowledge of the formal and codified kind generated through formal learning and through university-based research (Cochran-Smith & Lytle, 2001). To produce expert teachers, professional development imparts knowledge of effective practices, and teachers are trained through workshops, courses, and training handled by certified trainers (Cochran-Smith & Lytle, 2001, p. 262).

2.3.2 Knowledge-*in*-practice

Another concept of teacher learning that shapes many professional development initiatives to advance what teachers know and improve classroom practice is referred to as knowledge-in-practice (Cochran-Smith & Lytle, 1999). This perspective on teacher learning posits that the most essential knowledge for teachers is practical knowledge, or "knowledge in action" (Cochran-Smith & Lytle, 1999, p. 262), which is "embedded in practice and in teachers' reflection on practice" (Cochran-Smith & Lytle, 2001, p. 47). To enhance teachers' practical knowledge, teachers need opportunities to make their tacit knowledge that is embedded in experience transparent, requiring "considered and deliberative reflection about or inquiry into practice" (Cochran-Smith & Lytle, 1999, p. 262). In this concept of teacher learning, learning takes place in "facilitated teacher groups, dyads composed of more and less experienced teachers, teacher communities," and other types of collaborative efforts that support teachers' collective efforts to reflect in and on practice (Cochran-Smith & Lytle, 1999, p. 263).

2.3.3 Knowledge-*of*-practice

The third conception of teacher learning refers to the type of knowledge generated through the problematization of practice, known as knowledge-of-practice. This conception of teacher learning is not built upon the formal and practical knowledge but on the assumptions that the generation of knowledge and the use of knowledge are "inherently problematic" (Cochran-Smith & Lytle, 1999, p. 273). This type of knowledge is not built upon by expert trainers but by teachers when they raise questions about theirs and others' practice through an inquiry process (Cochran-Smith & Lytle, 1999). In other words, the knowledge that teachers need to teach well originates from their own classrooms and teaching contexts that they place under inquiry, and also when they treat knowledge and theories that are produced by others as open to interrogation and

interpretation (Cochran-Smith & Lytle, 1999, p. 250). Within this concept of teacher learning, the knowledge that teachers need to teach well lies within "systematic inquiries about teaching, learners and learning, subject matter and curriculum, and schools and schooling" (Cochran-Smith & Lytle, 1999, p. 274), and it will occur when teachers begin to question their own experiences, assumptions and beliefs (p. 279). This is in line with what is advanced by McKee (2003) who states that only when questions are asked about daily work activities will people be able to make things that they are comfortable with problematic, which marks the beginning of "authentic accountability" to each other within the collaborative effort and among the clients (p. 406).

In this conception of teacher learning, learning takes place in communities that take inquiry as a stance "where participants struggle along with others to construct meaningful local knowledge," "learn by challenging their own assumptions; identifying salient issues of practice; posing problems, studying their own students, classrooms and schools; constructing and reconstructing curriculum; and taking on roles of leadership and activism in efforts to transform classrooms, schools and societies" (Cochran-Smith & Lytle, 1999, p. 278).

The next part of the literature review will attempt to locate teacher learning within various collaborative initiatives.

2.4 Conceptualizing Teacher Communities

According to Levine (2010, p. 110), "most conception of teacher community has a common core... the notion that ongoing collaboration among educators produces teacher learning (which) ultimately improves teaching and learning." Despite having the same objectives, however, different collaborative efforts may have different conceptions of community, and thus they bring into focus different notions of teacher learning (Levine, 2010). Levine (2010) divides teacher learning communities into four different groups:

teacher professional communities, teachers as communities of learners, communities of practice and inquiry communities.

2.4.1 Teacher Professional Community

The conception of a teacher professional community identifies teacher learning as "how shared norms, beliefs and routines affect teachers' work with colleagues and students" (Levine, 2010, p. 111). The objectives of such collaborative teacher learning are to improve teaching practice in order to improve the well-being of the clientele. In other words, within such community, the "well-being of students must be central" (Grossman, Wineburg, & Woolworth, 2001, p. 951). When a study is conducted within the scope of a teacher professional community, the main concern is on exploring how "shared norms affect—and are shaped by—the quantity and nature of teachers' collaborative work" (Levine, 2010, p. 116). An example of a teacher professional community in action is reported in a study conducted by Grossman, Wineburg & Woolworth (2001). The main objective of that community was to improve students' learning experience by improving teachers' intellectual content knowledge, knowledge of the subject matter. The teacher professional community was comprised of members from diverse backgrounds who came together to develop an interdisciplinary humanities curriculum and to be a part of discussions on history and literature.

2.4.2 Teachers as Communities of Learners

Another type of collaborative teacher learning, teachers as communities of learners, conceptualizes teacher learning as looking at how schools can promote the learning of adults (the teachers) and the students (Levine, 2010). This notion of this form of teacher community lacks a theoretical and conceptual framework, thus making it difficult to determine what teachers being within a community of learners need to do in

order to promote their own learning and that of their students (Levine, 2010). In conducting research within this conception of teacher learning, however, one can look into the positions of teachers as learners within the school contexts or the impact of working as teachers on their identities and practices (Levine, 2010). An example of a study conducted on teachers as a community of learners is one conducted by Rust (1999). In this study Rust (1999) looked into the learning process undertaken by a group of new teachers to become more reflective and effective through professional conversations about teaching. The study was shaped by the perspective that learning is socially constructed and is influenced by the culture of the school and the needs of the participants.

2.4.3 Community of Practice

Another conception of collaborative teacher learning is the community of practice (COP) in which "people learn from seeing, discussing and engaging in shared practices" (Levine, 2010). The notion of COP was developed by Lave and Wenger, who advocate that learning is a situated activity in which learners are involved in the process of 'legitimate peripheral participation'— a newcomer becoming an expert through a "process of becoming a member of a sustained community of practice" (Lave, 1991, p. 65). The concept of COP can be useful in understanding the learning of beginning teachers through a mentoring or teacher induction process where "old-timers support newcomers who are on a trajectory into skilled participation in the practices of teaching" (Levine, 2010, p. 121). A study on learning within COP, for example, may look into the experiences of a beginning teacher in learning the craft by becoming a member of the school community through shared interactions and resources. According to Levine (2010), COP provides the "theoretical lens" for studying any type of professional development which involves new teachers learning from more experienced teachers or studying cases of experienced teachers learning new practice by relying on the shared

distribution of knowledge from more skilled others. An example of the former is a study conducted by Eick, Ware, and Williams (2003), who explored how student teachers learnt to teach by going through a period of co-teaching a subject. These new teachers observed and provided assistance to a teacher who was an 'old-timer,' and they later took the lead by teaching another class, but, this time, assisted by the 'expert.' An example of the latter is a study conducted by Blanton and Stylianou (2009), who investigated the situated learning of a group of experienced mathematics faculty members who were experts in the field but not in teaching. In this instance, the researchers viewed improvement in practice as changes to the identity of the members of the community of practice.

Studies on COP have also been stretched to cover any form of collaborative teacher learning that takes place within a group of teachers who share mutual engagement, a joint enterprise, and a shared repertoire (Horn, 2005). A study conducted by Horn (2005), for example, utilized this broad and more general conception of COPs when she investigated experienced Mathematics teachers' everyday on-the-job learning, situated within two communities of practice set up in two different high schools.

2.4.4 Teacher Inquiry Community (TIC)

Another conception of collaborative teacher learning, the teacher inquiry community (TIC), conceptualizes teacher learning as "how teachers learn from asking questions and finding answers together" (Levine, 2010, p. 111). The notion of TIC posits "the role of systemic inquiry... as a means to improve teaching and learning" (Levine, 2010, p. 112). For learning to be systematic, an inquiry community often adopts a mechanistic learning system that is activated through the use of tools, instruments or protocols (Ball & Cohen, 1999; Curry, 2008; Levine, 2010; Little, 2001; Miller, 2008). Communities that adopt inquiry as stance are termed inquiry communities, collaborative

inquiry groups, professional learning communities, critical friend groups, or lesson study groups.

In the process of improving teaching and learning, professional development that adopts the inquiry model persistently works over a period of time to "understand/resolve a dilemma and discover cause-effect findings about teaching and learning" (Ermeling, 2010, p. 378). The focus of a TIC is not just "on trying out a variety of interesting activities or strategies and then moving on to the next area of interest" but more on identifying instructional solutions that will lead to a noticeable improvement in learning (Ermeling, 2010, p. 379). Furthermore, the main goal of a TIC is not to "do research or to produce 'findings'" (Cochran-Smith & Lytle, 1999) but to "stimulate a quest for knowledge through a close examination of classroom practices and student understanding that ultimately leads to changes" (Slavit & Nelson, 2009, p. 4).

Hence, the TIC emphasises analysing teachers' own local contexts where members of the community strive to solve problems that are embedded within their jobs and thus relevant to their situations (Ermeling, 2010). This is also supported by Little (2001, p. 37), who states that adopting an inquiry stance on teacher learning involves teachers learning "in and from practice," concentrating on "the combination of knowledge of subject, knowledge of teaching, and knowledge of particular groups of students." Since the purpose of inquiry is to promote changes in what teachers know and do, within the TIC, learning is reflected through changes in intellectual skills, knowledge content, and cognitive strategies that results in heightened awareness and transformed meaning perspective (Yorks, 2005).

One other distinctive feature of a TIC is that the members of the community are not labelled as novice, experienced, or experts but all function "as fellow learners or researchers" (Cochran-Smith & Lytle, 1999, p. 278). Such is the case since it is assumed that when teachers learn through a process of inquiry, "both novice and more expert

teachers pose problems, identify discrepancies between theories and practice, challenge common routines, draw on the work of others for generative framework, and attempt to make visible much of what is taken for granted about teaching and learning" (Cochran-Smith & Lytle, 2001, p. 53). In other words, in a TIC, novice teachers are not learning from the expert teachers, nor is professional development seen as a transition from novice to expert (Cochran-Smith & Lytle, 2001). It is more a case of teachers, regardless of years of teaching and knowledge of the craft, collaboratively learning with and from each other by questioning each other's practice and challenging each other's assumptions and beliefs about teaching and learning.

A number of studies conducted on teacher inquiry communities reveal positive and satisfactory findings. A study conducted by Supovitz, Mayer, and Kahle (2000), for example, found that inquiry-based professional development brought about prolonged effects on teachers' attitudes toward reform and the use of reform-based activities. A study conducted by Crockett (2002) also showed positive teacher learning outcomes. The study proved that the inquiry stance taken by the community improved teachers' subject matter knowledge, knowledge on the procedural aspects of mathematics lessons, and, also, teachers' conceptions of what constitutes mathematical understanding. Another study on an inquiry community found that when a community of teachers took inquiry as stance, a number of positive outcomes were identified. Teachers reported that they experienced identity transformation as they began to view themselves "both as problem posers and problem solvers," they began to identify students and colleagues as possible sites for learning, and they also found that knowledge growth is plausible when they carry out interactions with students and colleagues (Lamb, Philipp, Jacobs, & Schappelle, 2009, p. 26).

According to Levine (2010), the concept of TIC "is clearest in suggesting what counts as learning and in specifying the mechanisms accounting for that learning"

(p.113). Other concepts of teacher learning, for example, teacher professional communities and teachers as communities of learners, "do not bring into focus any specific mechanism for learning" (Levine, 2010, p. 113). The concept of COP, on the other hand, offers a more general, theoretical description of what participants do within a community and does not specify specific collaborative activities that can result in learning (Levine, 2010).

The present study adopted the conception of TIC mainly because its main features support current perspectives on staff development. The mechanism within a TIC places teachers and their teaching as central to learning. It also activates and sustains the process of inquiry and reflection on teachers' own practice, which many experts believe to be focal to teacher learning. The other main reason why the conception of TIC was adopted was because of its systematic approach to teacher learning. TIC is one form of community-based staff development that relies on an instrument or a protocol to guide and make the learning process within the group systematic. This would provide valuable guidance and guidelines to teachers who are not used to having open conversations about practice. This would also ensure that the conversations within the community would go beyond the sharing of tips about teaching and assist teachers in problematizing their practice, which is an important step in teacher learning. Another reason why the conception of the TIC was employed was because of the genuine appeal it presents to teachers as a platform for them to inquire, reflect, share, and find solutions to the problems they have in teaching. These benefits may motivate teachers to become members of the TIC.

The next section will provide a more thorough discussion on the aspects of teacher learning in an inquiry community.

2.5 Teacher learning in a TIC

A TIC has several characteristics that set it apart from other forms of teacher communities, and these shape the learning process, the teachers' experience, and the kinds of knowledge produced from such processes. The next part of the literature review discusses in detail how each characteristic of the inquiry community shapes the learning that takes place within it.

2.5.1 Learning through the Process of Inquiry

To ensure successful teacher learning within communities of teachers, the current approach to professional development emphasises the need for the learning process to adopt an inquiry-based approach towards learning. As a result, many professional development programs push hard to introduce a "culture of inquiry" into the teachers' learning process (Little, 2001). In higher education, to respond to the changing "work environments, technological innovations and social conditions," as well as to remain competitive, Nicholls (2001, p. 17) emphasises the need for teacher learning to centralize on the inquiry-based approach in professional development. This notion of teacher learning is supported by Speck and Knipe (2001,), who state that professional development should promote teacher learning through a series of cycles of "inquiry, dialogue and reflection" which will create platforms for "thoughtful discussions of important learning issues" (p. 14).

According to Cassidy et al. (2008, p. 220), 'inquiry' can be defined as "an investigation into an issue or some phenomena" which involves a search for answers. An inquiry can be conducted to find answers to problems, but, at the same time, it can also be carried out in order to gain a deeper understanding of a phenomenon (Cassidy et al., 2008). Learning in a community that centralizes inquiry allows it to be "exploratory and inquisitive" (Lipman, 2003, p. 83). Within inquiry communities, teachers explore

teaching through collaborative searching for significant questions and continuous engagement in problem solving (Cochran-Smith & Lytle, 2001, p. 53). When such an approach is adopted, teachers will not be focused on finding definitive answers but on "possibilities, methods of reasoning, alternative conjectures, supporting evidence and arguments" (Ball & Cohen, 1999, p. 220).

According to Ball and Cohen (1999), the inquiry-based approach to teacher learning can improve teachers' interpretive power, which may lead to improvement in their teaching and that of others, enable teachers to see things from different perspectives and consider more alternatives, enable teachers to perceive their practice in a deeper and more complex way, and improve teachers' capacity to handle the nature of teaching uncertainties and learn from them through thoughtful analysis. In other words, like any other conception of teacher communities, the main objective of an inquiry community is to improve practice. What sets it apart from other forms of teacher communities is the strong emphasis on the process of inquiry carried out on teachers' assumptions, beliefs, and teaching practice as a way to generate knowledge that can improve teachers' instructional practices. Inquiries into practice, however, can only be made possible if teachers are able to make their practice transparent to others and they are able to problematize their practice.

2.5.2 Making Practice Transparent and Problematizing Practice

According to Cochran-Smith and Lytle (2001), when teachers learn together in a community that takes up inquiry as stance, their tacit knowledge about teaching and learning has to be visible to others. This allows opportunities to question assumptions about common teaching practices and generate data that allow teachers to consider the alternatives (Cochran-Smith & Lytle, 2001). Problematizing one's own practice, however, is considered difficult for many teachers as according to McKee (2003, p. 402),

in professional practice, ways of looking at events are often "disciplined by institutionalized roles and routines, and rehearsed" until they become second nature, and this determines what one can see and one cannot see. Changes to teachers' perceptions of their practice can only occur when they shift their way of looking (McKee, 2003). The inquiry process, in other words, will be stunted if teachers have qualms about disclosing their practice and if they cannot perceive any of the events occurring in their classroom as problematic.

To ease sharing of problems in teachers' practice, community members should be assured that everyone has problems in teaching, and the discussions within an inquiry community need to be problem-oriented. It is also important that a safe environment is created for teachers to disclose and inquire about practice (Bondy & Williamson, 2009, p. 117). This calls for the design of an appropriate protocol, process, or guidelines within a collaborative inquiry endeavour that would promote the sharing of practice and problems in teaching, address conflicts arising from interactions as valuable opportunities for learning, and keep discussions within the community safe for learning.

To infuse teacher learning and teacher change in a TIC, community participants should also address conflicts in a certain way. According to Achinstein (2002), conflict is inevitable and an important component of a community. Achinstein (2002,) defines conflict as "an ongoing process in which views and behavior diverge…or are perceived to be some degree incompatible" (p. 425). A community that carries out inquiry as a process of learning involves the community in a product-based process that is shaped by the dialogical interactions and "arguments" taking place within the community (Lipman, 2003). In an inquiry community, it is vital to face conflicts that arise during discussions on practice as it is through such experience that teachers will discover problems in teaching and gain multiple perspectives of their practice. Only by embracing conflicts will teachers move in the direction that leads to improved instructional practice.

Achinstein's case studies on the micropolitics of two schools in America reveal that teachers who embrace conflict as part of the learning within the community process go through cycles of inquiries that result in changes to their learning and teaching environments. On the other hand, teachers who struggle to gain consensus or to maintain a "pattern of unity" within the community maintain their status quo (Achinstein, 2002). According to Achinstein (2002, p. 441), instead of avoiding conflicts, the teachers in the first group "acknowledge, solicit, and own conflict(s) by critically reflecting upon differences of beliefs and practice" providing grounds for "active dissent and opportunities of alternative views." As these teachers did not avoid conflicts by blaming the causes of conflict on others, they carried out inquiries to understand the conflicts, and this resulted in them having a deeper understanding of the nature, the causes, and the consequences of the conflicts (Achinstein, 2002). The results of the case studies imply the importance of teachers who are learning within a community to embrace conflicts and use them as a platform for understanding the circumstances that result in the conflict existing within their teaching and learning environment in the first place. If conflicts are not embraced, as in the case of the teachers in the second case study, teachers will succeed in maintaining harmony within the group, but changes will not be part of their learning process.

The complexity of the processes within an inquiry community highlights the need for teachers to be trained to ensure that learning can actually take place within the community. According to Stokes (2001,), most teachers "experience precious little support in their workplaces for critically inquiring into their practices" (p. 142). There is thus a need for a training session before teachers can fully benefit from taking part in a community that takes inquiry as stance. A training session could familiarize teachers with the process of deprivatizing their teaching and carrying out inquiries and reflection on practice. The training could provide teachers with valuable practice on asking probing

questions and on developing frameworks to guide cycles of inquiry (McLaughlin & Zarrow, 2001).

The complexity of teacher learning through an inquiry-based process does not only require teachers to be trained, in order to create and sustain an inquiry-oriented stance toward teacher learning. Cochran-Smith and Lytle (2001, p. 294) also advise that teachers in a community that takes inquiry as stance need to work over "sufficient chunks of time" to enable ideas to develop, trust to be built, and participants to feel comfortable making explicit and sensitive revelations of their instructional practice.

In a TIC, teachers' practice and teachers' problems in practice are made explicit through a systematic approach to inquiry, which is achieved through the use of protocols (Levine, 2010). Its emphasis on the sharing of data and evidence of practice also helps to make teachers' practice transparent to others (Ball & Cohen, 1999; Cochran-Smith & Lytle, 1999). The next part of the literature review will address this in detail.

2.5.3 Utilizing a Systematic Approach to Learning

To make teachers' tacit knowledge and practice transparent to others and to ensure that conflicts are addressed and not pushed aside, a TIC applies a systematic approach to learning (Levine, 2010), involving the use of tools, instruments, or protocols (Ball & Cohen, 1999; Curry, 2008; Levine, 2010; Little, 2001; Miller, 2008). Adopting a protocol will guide the process of learning and encourage "the deprivatization of practice" and give space for members to "ask challenging questions, critique the practice of their peers and offer instructional advice" (Curry, 2008, p. 764). Not only that, the use of a protocol enables "very focused conversations to occur" (Bondy & Williamson, 2009, p. 113) and supports a shift from superficial to deep, critical conversations about practice (Nelson, Deuel, Slavit, & Kennedy, 2010). The protocol, in other words, shapes the interactions and activities within an inquiry community as it outlines the detailed procedure of the

cycles of inquiry and reflection within the community (Curry, 2008). Furthermore, reliance on protocols as "conversational tools" provides "prompts and permission to push beyond privacy norms" (Levine, 2010, p. 112).

An example of an initiative that went through a systematic process through the utilization of a protocol is the Bay Area School Reform Collaborative (BASRC) project. The main aim of this project was to "reculture" and to support whole-school change, and the protocol utilized was intended to "help schools pose, investigate and respond to questions" on policies and practices (McLaughlin & Zarrow, 2001, p. 80). The protocol employed required data to be collected as evidence to support discussions and decisions made in the community. The BASRC project proposed a six-step inquiry process, which began with a proposal of a broad problem statement. The next step involved refining the problem through focused effort. What was done next was to identify measurable goals that would help in building concrete action plans. The last two steps involved implementing actions and analysing results from data. Then the cycle of inquiry would begin again, maybe with the same problem but a more refined one. The inquiry process supported by the protocol fostered teacher learning as reported by McLaughlin and Zarrow (2001, p. 93) as the community under the BASRC project had shown changes in the practice of its members in the way data was used to support practice and in enabling teachers to transform "social facts" into "problems" that were later subjected to the inquiry and problem solving process (McLaughlin & Zarrow, 2001, p. 93).

A study by Curry (2008, p. 764) found that the utilization of a protocol in a Critical Friends Group (CFG) helped in enhancing the "level of discourse and meaning constructed" during meetings. Participants also reported that the processes introduced, induced by the protocol, influenced their teaching practice and helped foster critical and generative conversations about teaching, learning and reform. Teachers also found that the protocol used helped them to depersonalize teaching since it allowed teachers to state

concerns that would have been considered offensive if presented in a different setting (Curry, 2008). The participants' support on the use of a protocol to assist inquiry had helped guide and structure professional conversations about teaching. It had also fostered changes not only to the way teachers thought about their practice but also the way they handled problems arising from their practice, even when they were no more members of the CFG (Curry, 2008).

Another example of a systematic approach toward collaborative inquiry is the one advocated by Tillema and Westhuizen (2006, p. 56-57), who describe a ten-step protocol to generate knowledge in an inquiry community: 1) defining tasks or problems, 2) exploring existing knowledge and beliefs, 3) reflecting on knowledge and perspectives, 4) searching for solutions, 5) collecting relevant materials, 6) carrying out inquiries and research, 7) producing solutions in the form of conceptual artifacts, 8) displaying and presenting, 9) redefining solutions, and 10) processing evaluations and learning outcomes. The first level of inquiry involves participants' reflecting on problems by "explicating knowledge and beliefs" (Tillema & Westhuizen, 2006, p. 54). At the second level of inquiry, participants experiment, study and investigate problems raised, and, in the third level of inquiry, the "generation of conceptual artifacts," practical results can be observed (Tillema & Westhuizen, 2006, p. 55). In their study on collaborative inquiry through study teams, Tillema and Westhuizen (2006) found that, despite a number of difficulties due to participants' individual and situational differences, approaching learning as a guided process of inquiry led to greater awareness of problems, heightened sensitivity toward problems, and led to a shift in perspectives.

Reliance on protocol enables the learning process in a TIC to be systematic and helps in guiding conversations taking place within an inquiry community. However, as stated by Cassidy et al. (2008), it is vital to maintain sufficient flexibility in learning as this will foster creativity. Curry (2008, p. 767) reported that reliance on a protocol limits

learning in an inquiry community under study in two ways: 1) the protocol guidelines limit "pursuit of important emerging issues" and 2) reliance on protocol appeared to "engender and reinforce ritualized patterns of discourse that potentially narrowed the depth" of inquiry. Curry (2008, p. 767) explains the first limitation as a situation where participants were able to uncover a lot of important issues or topics, only to drop them in order to carry out the next phase in the protocol. The second limitation is reflected in a situation where in helping a participant to solve her dilemma, participants brainstormed and listed down a number of suggestions; however, the inquiry group rarely investigated the "nuances, learning demands, and consequences of adopting and implementing such recommendations" (Curry, 2008, p. 767).

2.5.4 Emphasizing on Interactions

Wilson and Berne (1999), in their attempt to link teacher learning and the acquisition of professional knowledge, disclosed six different studies which explored how professional knowledge is acquired through collaborative effort through talk about subject matter, students and learning, and teaching. From their analysis of the studies, they shared that new knowledge was generated from the interactions that teachers carried out over different areas in their instructional practice. Clark (2001, p. 173) reports that by engaging in authentic conversation with other teachers, teachers learn to articulate "implicit theories and beliefs," improve on perspective taking, develop "a sense of personal and professional authority," revive relational connections, and develop specific techniques and solutions to problems with practice. Learning, in other words, is located within the conversations or interactions or the talks that take place between community members.

Dillenbourg (1999, p. 8) describes three main criteria in defining collaborative interactions: "interactivity, synchronicity, and 'negotiability.'" According to Dillenbourg

(1999), a collaborative situation needs to be quite interactive, and the degree of interactivity among peers should not be viewed from the frequency of interactions but by the extent to which the interactions influence the cognitive processes of peers. Synchronicity, according to Dillenbourg (1999), relates to the act of doing something together as a synchronous communication. The last feature of collaborative interactions is negotiability. In collaborative interactions, each member is given a space to negotiate, "to argue for his standpoint, justify, negotiate, attempt to convince" (Dillenbourg, 1999, p. 9). According to Dillenbourg, Baker, Blaye, and O'Malley (1996), collaboration should not be viewed as a treatment which has positive effects on participants, but instead it should be viewed as a complex social structure between interacting individuals in which in some situations some types of interactions that occur within the collaboration have a positive impact on learning.

In a TIC, interactions are an important dimension. According to Cochran-Smith and Lytle (2001, p. 294), one important dimension of the "formation and the maintenance" of a community that adopts inquiry as stance is the discourse—"particular ways of describing, discussing, and debating teaching." In a TIC, groups of teachers "engage in joint construction of knowledge through conversations and other forms of collaborative analysis and interpretation" (Cochran-Smith & Lytle, 2001, p. 294). Learning within a TIC is evidently located in the "oral inquiry" through conversations that teachers carry out about "students' work, teachers' classroom observations and reflections, curriculum materials and practices, and classroom-related documents and artifacts" (Cochran-Smith & Lytle, 1999, p. 279). In such a community, it is the exchange and dialogue, together with reflection, that are considered central to knowledge production (Tillema & Westhuizen, 2006).

One important aspect of interaction that has been repetitively mentioned as pivotal to the success of a community that adopts inquiry as a stance is the collegiality of

interactions. Nelson, Deuel, Slavit, and Kennedy (2010) describe collegial dialogues as productive, critical, deep conversations that can lead to better understanding about practice. In collegial interactions or dialogues, group members would be "asking and answering probing questions about the reasons for, impacts of, and evidence that supports specific instructional decisions," and they also "recognize the value of cognitive conflicts as a way to gain a deeper understanding about the complexities of teaching and learning" (Nelson, Deuel, Slavit, & Kennedy, 2010, p. 178). Collegial interaction is vital in any form of professional development that is considered effective as too little of such interaction limits improvement (Caffarella & Zinn, 1999).

In a TIC, interactions between members of a community may impact participants' motivation and confidence, and the way conflicts are addressed or handled through interactions can either destroy relationships or become a source and a catalyst for inquiry (Cassidy et al., 2008). It is the safe form of interaction between members in a community that promotes a safe environment for teachers to carry out inquiries and to reflect on teaching practice (Bondy & Williamson, 2009). Interactions that reflect high levels of tentativeness and uncertainty enable learning to be carried out in a safe environment as tentativeness "keeps the problem 'open' and invites input into its definition and potential action to be taken" (Bondy & Williamson, 2009, p. 117).

2.5.5 Tool-dependent Learning Processes

What shapes the content of interactions within a TIC are the tools used or found within it. One tool that is often used in a TIC is the protocol. A protocol shapes the process taking place within a TIC and helps govern the interaction so that it remains focused on the problems addressed (Bondy & Williamson, 2009). Another tool which assists the TIC learning process is teachers' evidence of professional work that surface during discussions on practice (Ball & Cohen, 1999; Sinnema, Sewell, & Milligan, 2011).

According to Ermeling (2010, p. 378), teachers who participate in an inquiry process use "a variety of evidence and data to conduct their study of a problem and learn to rely on this evidence" in order to better understand the problem as well as to "inform their decisions about what is working and what action needs to be tried next." Evidence of professional work ranges from "written cases of teaching, multimedia cases or the raw materials of such cases, observations of teaching, teachers' journals, and examples of students' work" (Ball & Cohen, 1999, p. 15). The sharing of such evidence of practice, according to Ball and Cohen (1999, p. 16), may benefit a TIC in the following ways: (a) it enables teachers to encounter different practices, (b) it provides opportunities to scrutinize, study, analyze, and contrast evidence of practice in a better way, (c) and it enables the "systematic study and analysis of teaching and learning." Most importantly, the use of "real artifacts" in inquiries "permits a kind of study and analysis that is impossible in the abstract" (Ball & Cohen, 1999, p. 24).

A study conducted by Crockett (2002) shows how tools used in his study shaped the process of learning and the kinds of knowledge generated from the process. In his study, Crockett (2002) reported a year-long study of an inquiry community of mathematics teachers. The main objective of this study was to discover whether certain activities generate, more than others, the kind of inquiry that would make teachers challenge their beliefs and practices. To problematize teaching and to foster teacher learning through an inquiry process, four tools were utilized: a video vignette, samples of students' work, an open-ended problem, and lesson planning. Crockett (2002) reported that activities that utilize different tools to generate teacher learning through inquiry enabled different kinds of interactions that led to different ways of knowing and learning knowledge, and different levels of success in fostering teacher learning. Crockett (2002) found that the video vignette, which contained a recording of a teacher teaching Geometry, and the lesson planning resulted in conversations on only the technical or

procedural aspects of teaching. Teachers did not problematize what they saw in the video nor challenge their own assumptions about the teaching of fractions and geometry. Another task involved teachers completing an open-ended question. Crockett (2002) found that open-ended questions were the least successful in generating inquiries that make teachers question their own assumptions about the teaching of Mathematics. This was because teachers focused mainly on getting the correct answer and not on examining their assumptions on the types of responses students might produce. The tool that generated the most inquiries about teaching was students' work. Crockett (2002, p. 262) disclosed that the most interactions and inquiries were generated when teachers discussed students' work as it made the teachers argue and challenge each other's assumptions, which, in the end, led to an improvement in "teachers' conceptions about what constitutes understanding in the context of the problem."

Another important tool that supports learning within such communities is reflection. According to So (2013), reflection acts as a "starting point for teachers to consider and problematize their knowledge and beliefs" (p. 190). Reflection increases teachers' awareness of their instructional dilemmas and helps them in "explicating existing knowledge, motivation and interests" (Tillema & Westhuizen, 2006, p. 54). In many studies on TICs (e.g., Roblin & Margalef, 2013; Sinnema, Sewell, & Milligan, 2011; So, 2013; Tillema & Westhuizen, 2006; Zellermayer & Tabak, 2006), reflection was found to be an important tool which assisted the learning process. Reflective tools, for example, reflective diaries and journals, were used to trigger reflection within these communities.

A study conducted by So (2013) which attempted to explore knowledge construction among teachers within a TIC found that reflective diaries were an important tool which helped "in maintaining and activating the inquiry community" (p. 195). Writing in a reflective diary helped teachers in the study to "objectify and changed their

assumptions and thoughts regarding their teaching practices" (So, 2013, p. 195). Not only that, through the study, it was found that "reflective dialogue" functioned as a mechanism for collaborative knowledge construction which helped teachers gain a better understanding of the issues raised. Another study conducted to understand teacher learning within a TIC conducted by Roblin and Margalef (2013) also highlighted the importance of reflection in the teacher learning process within a TIC. In this study, both researchers attempted to understand how five university teachers learnt from their instructional dilemmas. The study found that collaborative action and reflection are important supportive learning elements in such teacher learning communities. It also found that critical reflection is very important as it "ultimately led teachers to question and revise their personal beliefs about teaching and learning" (Roblin & Margalef, 2013, p. 29). (View Figure 2.1 for the conception of teacher learning in a TIC)

The next part of the literature review discusses the contextual factors of professional development that can support or hinder teacher learning and knowledge transfer to teachers' practice.

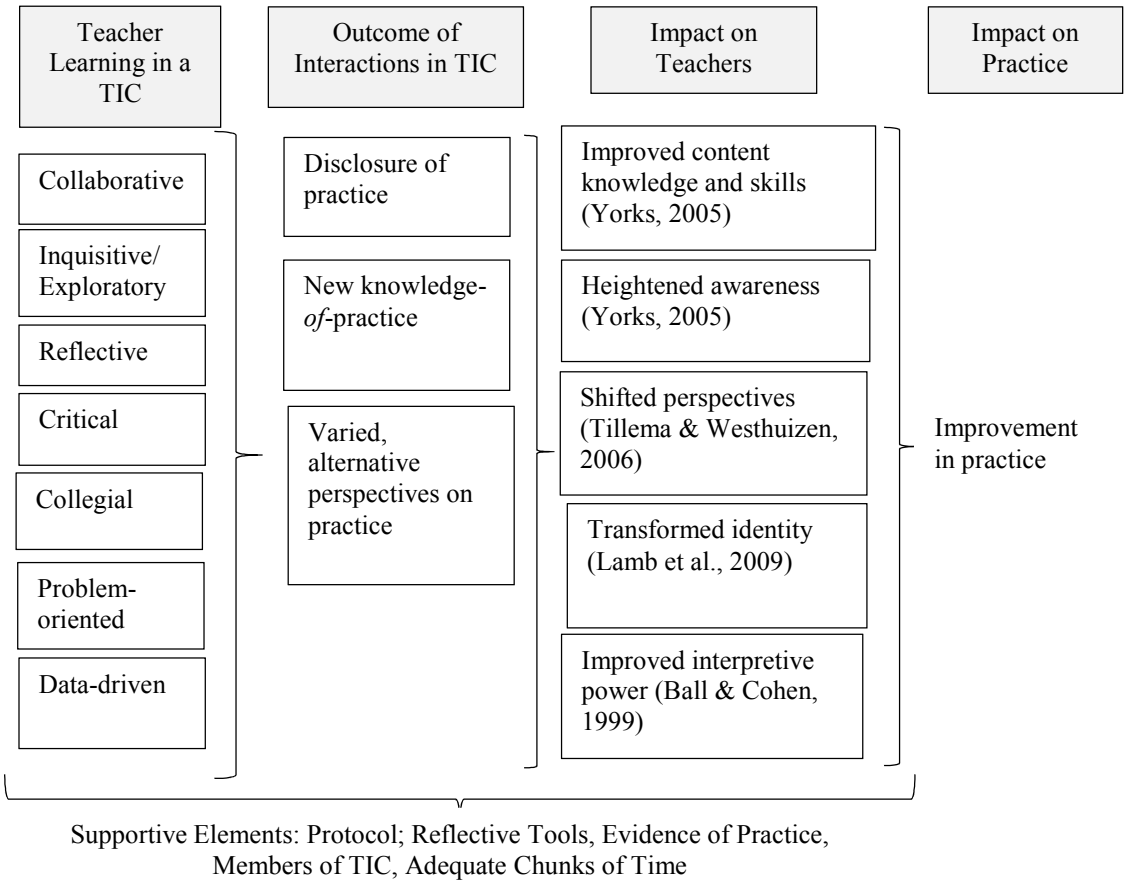

Figure 2.1: The Conception of Teacher Learning in a TIC

2.6 Supports and Barriers to Teacher Learning in Professional Development

According to Guskey (2010), professional development programs are "systematic efforts to bring about change in the classroom practices of teachers, in the attitudes and beliefs, and in the learning outcomes of students" (p. 381). Not all professional development, however, leads to positive teacher learning or changes to teachers' instructional practice. In fact, even when learning occurs during professional development, it does not "necessarily lead to productive change in practice" (McLaughlin & Zarrow, 2001, p. 97).

A number of past studies, for example, showed that when translating "theory into practice," teachers are prevented from being "knowledge productive" (Tillema & Westhuizen, 2006, p. 52). What this means is that despite being able to generate

knowledge during professional development, teachers face problems transferring the knowledge learnt to their practice.

Many factors that exist within the context of teacher professional development can either foster or impede teacher learning and teacher change, and these factors are related to individual intellectual and personal characteristics, people, and interpersonal relationships within an institution, the teacher community, the professional program designed, and institutional structures.

2.6.1 Individual's Intellectual and Personal Characteristics

Caffarella and Zinn (1999) state that the intellectual and personal characteristics of participants can foster or impede professional development. Under this category, Caffarella and Zinn (1999. p. 248) incorporate "internal motivations" and perceptions of self as a teacher and a scholar. According to Caffarella and Zinn (1999), a participant's beliefs and values can become an enabling or an impending factor that can influence the impact of professional development. Caffarella and Zinn (1999, p. 248) state that participants who 1) hold strong beliefs and values "that demand excellence at work," 2) value continuous professional development, and 3) hold a strong sense of obligation to be active teachers, scholars, and learners through their careers may achieve more from professional development than those who believe that achieving the minimum is sufficient and who have limited interest in improving themselves professionally or in committing to continue being active learners, teachers, and scholars.

Stokes (2001) found that teachers' beliefs are one of the main barriers that hindered any form of improvement to their instructional practice. During the initial stage of the study, teachers were required to individually reflect on students' achievement data as a way to challenge their teaching practices and beliefs. The conclusion made by the teachers reflected deep-rooted beliefs that the problems of "inequitable achievement" did

not rely on teaching techniques, per se, but also on students. Such deep-rooted beliefs about what caused imbalanced achievements among students hindered any form of change to the teachers' classrooms. In other words, teachers' beliefs and values concerning work, professional development, and self can be the determining factors that shape how they contribute during collaborative efforts to improve practice and what they take from a professional development program. This will then determine the extent of skills or knowledge transferred to their classrooms as a result of their participation. To induce teacher learning and change in a teacher community, it is vital to acknowledge individual's prior beliefs and dispositions as these can be major determinants of individual involvement in a community which may impact what they achieve from such professional development (Tillema & Westhuizen, 2006).

Caffarella and Zinn (1999) state that participant's self-confidence and the perception that he or she can make a difference to the lives of the students, other educators, and to the field of study also shape the impact of professional development. If a participant has little confidence and only associates feelings of discouragement or frustration to his or her role as an academic staff member, there are limited opportunities for growth during professional development (Caffarella & Zinn, 1999). On the other hand, a participant who enjoys challenges and change may have the ability to see the bigger picture and relate it to his or her educational institution and is able to "thrive with intrinsic rewards" (Caffarella & Zinn, 1999, p. 248). He or she may also achieve more from professional development than one who is reluctant or is actively resistant to change and/or focuses only on matters pertaining to his or her own work and needs to be extrinsically rewarded in order to be motivated to improve the self (Caffarella & Zinn, 1999, p. 248). For teachers who are taking part in a collaborative form of professional development, their self-confidence, their ability to associate their personal goals with those of the educational institution they are affiliated with, their ability to be motivated

intrinsically, and their openness to challenges and change can determine their level of participation within the community. If a teacher is not open to change or challenges, or has low self-confidence, he or she may struggle to learn in a community every time a conflict surfaces or every time another member of the community highlights problems in his or her instructional practice.

The individual's purpose for joining professional development can also impact professional development. Cassidy et al. (2008) reveal that an individual has different purposes for being part of a community. The purpose for joining a community can also be external (forced by others) or internal (instrumental motivation). If individuals are forced by others to join a teacher learning community, there are chances that they may feel "disengaged or feel disenfranchised," and this can affect the individuals and the community itself (Cassidy et al., 2008, p. 229).

2.6.2 People and Interpersonal Relationships

Caffarella and Zinn (1999, p. 245), state that another factor that can impede or enable professional development includes "the people and interpersonal relationships" of members within an institution, and under this category, they include the following: 1) positive working relationships, 2) active work collaboration among members, 3) respect among members despite differences in ways of working and personal philosophies, 4) work recognition, and 5) encouragement and support from family and friends for roles at work and activities in professional development. According to McLaughlin (1993, p. 94 as cited in Thomas, Wineburg, Grossman, Myhre, and Woolworth, 1998), teachers in low collegiality settings view "their jobs as routine, their workplace as highly bureaucratized, and their subject matter as static or unchanging," whereby those who are working in highly collegial settings display a "high level of innovativeness, high levels of energy and enthusiasm, and support for personal growth and learning." Support from colleagues who

are not part of the teacher community, in other words, is vital as it influences teachers' attitudes towards learning and change.

Furthermore, positive working relationships outside of a teacher learning community may impact the community learning atmosphere. If members of a teacher learning community often collaborate with others concerning work matters, they may not find it too challenging when they need to take part in a collaborative effort to improve teaching. Furthermore, if teachers respect one another at work, they would respect each other's differences and recognize each other's contributions to the group when taking part in a collaborative initiative to improve their instructional practice.

According to Caffarella and Zinn (1999, p. 245), support from circles of people outside the workplace boundary is also a determining factor that may impede or enable professional development since these people who could be family members or friends can "provide tangible help with non-work tasks at particularly demanding times in one's professional life."

2.6.3 The Teacher Community

In order for learning to occur within a teacher collaborative effort, another factor that needs to be considered is the relationships between members (Cassidy et al., 2008, p. 226). According to McLaughlin and Zarrow (2001, p. 97) the impact of teachers' participation in a teacher community on their practice is essentially dependent on "the characters of that community and relations among its members." This is echoed by Cassidy et al. (2008, p. 224), who state that it is the quality of relationships within a community of inquiry which determines "the degree to which it achieves its desired purpose." The kind of community in which learning is situated can foster or hinder professional development. When learning takes place in a pseudocommunity, where conflicts are not addressed and maintaining the harmony within the group is primary, not

much learning can occur (Grossman, Wineburg, & Woolworth, 2001). This can be related to what Nelson et al. (2010, p. 176) describe as a traditional culture of congeniality, where the main concern is "to preserve the status quo," where norms of privacy are upheld and carrying out inquiries about teachers' instructional practices is avoided. In such a community, teachers may merely be focusing on the sharing of general information about practice, which is "often unsupported by empirical evidences," while carefully avoiding the questioning of values of practices (Nelson, Deuel, Slavit, & Kennedy, 2010, p. 176). This would inevitably lead to minimal learning and impact on practice.

When conflicts are addressed, however, other problems might arise that may impact learning in a community, and the community must address these problems to enable teachers to learn. Dooner, Mandzuk, and Clifton (2008) explain that when cognitive and affective tensions surface, teachers often react by feeling confused or feeling vulnerable as they struggle with conflicting views of effective teaching practice, unclear interpretations of educational goals, and uncertainty with their own knowledge base. In order for teacher learning to take place within a collaborative form of professional development, like the TIC, it is important that the community addresses such feelings and uncertainties raised by members in order to ensure that collegial relationships between members are preserved. This is important as only when members are civil and respectful toward one another and view each other as a source of support will learning take place within the community.

The other factor that Cassidy et al. (2008, p. 229) believe can either facilitate or hinder collaborative teacher learning is the control the participants have over the decisions made in the community. Control can shape the following: 1) who has access to the community, 2) how relationships should be conducted, 3) assumptions that can be tolerated, 4) how the community operates, and 5) the extent to which the purpose can be supported. If the learning objectives of a teacher community are determined by others,

there is a possibility that the objectives set may not be the learning objectives the community members would want to achieve. This, in some ways, will affect their motivation, and thus, affect the outcome of their participation. Furthermore, if the members of a TIC have low control over the operational aspects of the community, there is a possibility that conflicts might arise, particularly if the designed operations are contradictory to the learning culture practiced by the community.

Another factor that influences learning in a community is the 'climate' shaped by the "context, environment, patterns of interaction, expectations, tone, nature of relationships and control" (Cassidy et al., 2008, p. 227). According to Cassidy et al. (2008), purposeful and effective inquiry can only take place within a community that is non-threatening and supportive. It is indeed difficult to imagine teachers whose work environment fosters a competitive climate to be able to learn with and from one another in a collaborative effort to improve instructional practice.

To ensure that teacher learning takes place in a non-threatening environment, Snow-Gerono (2005, p. 253) advances the idea of creating a safe environment for teachers to "cultivate a culture of inquiry" in which it is "acceptable, even appropriate, for them (teachers) to be uncertain about issues in their ever-changing, dynamic classrooms." One way to create a safe environment for teacher inquiry is through the use of tentative or modalized speech (Bondy & Williamson, 2009). Modality in speech refers to "a complex aspect of meaning conveyed through word choice" (Bondy & Williamson, 2009, p. 104) which reflects the degree of certainty and authority in speakers' utterances (Fairclough, 2003). According to Bondy and Williamson (2009), the use of nonmodalized negative questions and statements can bring about negative impact to the collaborative inquiry process, as opposed to the use of modalized speech that reflects tentativeness and uncertainty.

Another factor that is considered vital to not only promote teacher learning but also in sustaining teacher change is support from community members. A study conducted by Franke, Carpenter, Levi, and Fennema (2001) to capture teachers' generative change after professional development shares reports from teachers who stated that support from colleagues was critical in order to sustain continuous learning that can lead to improvement in practice.

Furthermore, for learning to take place in teacher communities, there should also be a sense of trust among the participants as this will facilitate critical debate on issues or problems raised (Cassidy et al., 2008). Building trust among members is considered one of the important elements in a collaborative form of professional development, particularly if it takes inquiry as a stance (Cassidy et al., 2008; Cochran-Smith & Lytle, 1999). If lack of trust is felt among members, not much learning may take place as teachers may pretend to learn but are generally afraid to make their practice transparent because they fear that what is shared could be exposed to others outside the community. If there is a sense of trust among members, there are better chances that problems in practice will surface, cognitive and affective tension will be voiced, and doubts and uncertainty will be made transparent and addressed. This may add quality to both collective and individual inquiries and reflection on practice which may lead to a better quality of learning within the community.

2.6.4 The Professional Development Program

The failure of professional development in encouraging changes to teachers' instructional practice could also be attributed to the design of a professional development program. Guskey (2003) highlights the failure of professional development that overlooks the fact that teachers are pragmatic. Often, community members, being adult learners, would want to gain specific, practical, ready to be applied ideas that they can utilize in

day-to-day teaching from professional development. In other words, teachers could feel demotivated if they feel that their participation in a teacher community does not provide them with answers to their problems or skills and knowledge that are relevant to their practice.

Furthermore, professional development programs that are "intellectually superficial, disconnected from deep issues of the curriculum and learning, fragmented and noncumulative" are often unsuccessful in developing teachers' skills and knowledge that can impact their instructional practice (Ball & Cohen, 1999, p. 4). This is supported by Guskey & Yoon (2009), who state that professional development that is short-term, superficial, unsupported, and does not take into account how teachers learn and their needs does not promote the generation of new knowledge, thus limiting chances for changes to take place in the teachers' classrooms as a result of participating in the professional development.

To ensure that professional development can lead to changes in teachers' instructional practice, it is also important that there is flexibility in how activities within the professional development are carried out. A study reported by Stokes (2001) reveals that deliberations carried out by teachers about outcome data in the inquiry group that she studied did not foster change in teachers' teaching practices due to the nature of the activity carried out within the inquiry group. The inquiry group that she studied employed individual reflection as a tool to foster teacher learning, and this reflection was given small-group support. During the initial stage, teachers were required to individually reflect on data on students' achievement as a way to challenge their teaching practices and beliefs. The first attempt, however, resulted in failure because of teachers' deep rooted beliefs. As the inquiry group progressed, the teachers with the help of an external critical friend continued with their individual reflections about the instructional practice, but this time, they probed problems that they found interesting. Collegiality and group

privacy with no expectation of making the findings of their private reflections known to others resulted in the "generations of self-knowledge" (Stokes, 2001, p. 147). Such a context of teacher learning, which was "more individualistic and more fluid form of personal inquiry," enabled the teachers to systematically analyze their teaching practices and the beliefs underlying these practices (Stokes, 2001, p. 147).

2.6.5 Institutional Structures and Context

Another factor that can impact professional development is institutional structures and context (Cassidy et al., 2008). What exists within the context of the learning institution can influence what participants take from professional development in either positive or negative ways. When addressing the supports and barriers to professional development, Caffarella and Zinn (1999) describe the domain of instructional structures, which includes provision of necessary resources, opportunities for members to take part in ongoing professional growth, recognition of different forms of professional development, time allocation for professional development, climate, and written or unwritten operating procedures and norms that encourage participation in professional development and allow differing definitions of success. Tools and resources that exist within a context, for example, can either facilitate learning or "constrain and limit the activity of the group and the quality of the interactions" (Cassidy et al., 2008). According to Caffarella and Zinn (1999), in an institution, there may be resources allocated for teachers to take part in professional development, but they may not be able to do so because of their daily workload demands which prevent them from participating and benefiting from such programs. Another factor that influences professional development efforts is the definition of success of an education institution (Blackwell & Blackmore, 2003). This is a determining factor since teachers may not be willing to take part in professional development if they know that their success at work is not determined

through their participation in such efforts but through other factors like research conducted, number of published papers, hours of teaching, and students' feedback.

A study by Buczynski and Hansen (2010) shows that even though some participants reported transferring knowledge gained through an inquiry learning project to their practice, others reported that transfer of knowledge gained was hindered by organizational obstacles, which included limited resources, time constraints, mandated curriculum pacing, and individual obstacles, which included language problems and individual classroom management. A study by Curry (2008) also reported that reformed conversations did not necessarily translate into collective and systematic action due to the "structural and decentralized configuration" of the inquiry group from the school-wide reform (p. 754). Like any other form of professional development, teacher communities like the TIC require vital support from the organization that teachers are in. Without this support, teachers may not become knowledge productive as they might not be able to apply what they have learnt from teacher communities to their practice.

The following part of this literature review explores past studies on teacher inquiry communities.

2.7 Past Studies on Teacher Inquiry Communities

Many studies have been conducted to understand teacher learning within various teachers' collaborative endeavours as staff or teacher development leans towards the formation of collaborative learning communities rather than a competitive "aggregation of separate individuals" (Clark & Florio-Ruane, 2001, p. 3). Prominently, as inquiry becomes pivotal to teacher learning, studies were conducted to understand how and what teachers learnt within inquiry communities that were set up to improve teachers' instructional practice. These studies investigated various aspects of teacher learning within inquiry communities and attempted to bridge knowledge gaps in the following

areas: dialogues/conversations in collaborative inquiry (Bondy & Williamson, 2009; Nelson, Deuel, Slavit, & Kennedy, 2010), forms of inquiry and their effects on teacher learning with inquiry communities (Crockett, 2002; Stokes, 2001), patterns of inquiry and knowledge use in an inquiring school (McLaughlin & Zarrow, 2001), conditions and support for teacher learning within inquiry communities (Stokes, 2001; Nelson & Slavit, 2008; Nelson, Slavit, Perkins, & Hathorn, 2008; Curry, 2008), knowledge constructions in inquiry communities (So, 2013; Tillema & Westhuizen, 2006; Zellermayer & Tabak, 2006), and effects of teachers' participation in inquiry communities on practice (Emerling, 2010; Sinnema, Sewell, & Milligan, 2011), and effects of collaborative inquiry and reflection on teacher learning (Roblin & Margalef, 2013).

Studies which analyzed dialogues or conversations between teachers during TIC meetings shared vital findings on the 'kinds' of talks or dialogues that supported or hindered teacher learning with the TICs. Discourse analysis of dialogues taking place during TIC meetings showed that "tentative speech, individual and group activation, focusing speech" were perceived as "helpful and productive," while "other talk appeared to shut down inquiry" (Bondy & Williamson, 2009, p. 112). Nelson, Deuel, Slavit, and Kennedy's (2010) study, on the other hand, found that polite and congenial discussions on practice did not result in productive outcomes as much as collegial dialogues did as this type of dialogue "probes more deeply into teaching and learning" (p. 175).

Other studies looked into teachers' conversations and dialogues to understand the kinds of inquiries that teachers' made and identified the effects of inquiries on teachers' and their learning. The study conducted by Stokes (2001) on school-based TICs, for example, found that inquiry could generate powerful learning, but it could also lead to "guilt and conflict" (p. 153). The study also found that voicing differences in a community that took inquiry as stance was not easy and that inquiries did not necessarily lead to change (Stokes, 2001). A study by Crockett (2002) on a teacher inquiry group of

Mathematics teachers situated within a small elementary school, on the other hand, found that certain types of inquiries generated debates and "enriched teachers' thinking," better than others, particularly when they centred on students' work (p. 609). On the other hand, the study by McLaughlin and Zarrow (2001) on patterns of inquiry and knowledge use of school teachers in a 5-year school reform project (Bay Area School Reform Collaborative (BASRC)), found that "knowledge that teachers' seek to improve their practice builds on what they know and can do" (p. 96). The study also highlighted the importance of "foundational, situated knowledge" in teacher learning as knowledge that teachers have about their practices and schools "fundamentally shapes what and how much they can learn from knowledge for practice" (McLaughlin & Zarrow, 2001, p. 96).

Other studies conducted on TICs focused on understanding the contexts that supported or hindered teacher learning within TICs. The study by Stokes (2001) on an inquiring school, for example, found that for inquiry to work as a tool that can activate change, teachers have to develop both "normative and technical capabilities for inquiry" (p. 150), embrace inquiry as a collaborative effort, and they must be aware of the challenges of inquiry and have their "eyes wide open to the complex realities of inquiries-in-practice" (p. 155). Nelson and Slavit (2008), who studied a supported collaborative inquiry project (Partnership for Reforms in Secondary Science and Mathematics (PRiSSM)), found that "support for the collaborative inquiry process and support for inquiry context" were necessary to facilitate teacher-led processes in the said project (p. 113). Support for the collaborative inquiry process, according to Nelson and Slavit (2008), includes a facilitator, a "critical other" – "someone that is external to the group but internal to the inquiry process" (p. 107), and provisions of relevant tools and protocols. Nelson and Slavit (2008) identified support for the inquiry context as having adequate time for teachers to collaborate and inquire, to "document time and products," to collect data and analyze them, and to reflect (p. 111). A study conducted by Nelson,

Slavit, Perkins, and Hathorn (2008) also found that elements within teachers' workplaces could interfere with the processes of teacher learning within an inquiry community. Their study, which was carried out on a group of 12 professional development (PD) providers in secondary schools, found that collaborative inquiry was challenged by an ongoing project and the "demands of people's other work in school districts and universities" (Nelson, Slavit, Perkins, & Hathorn, 2008, p. 1270). The study, however, found that dialogue-structured by protocol, distributing leadership responsibilities, and "co-constructing an inquiry focus based on data analysis helped the group develop and maintain an inquiry stance" (Nelson, Slavit, Perkins, & Hathorn, 2008, p. 1270). A study conducted by Curry (2008) on mature inquiry communities at six schools supported some of the findings made by Nelson, Slavit, Perkins, and Hathorn (2008), particularly on the positive effects of the use of protocols in structuring conversations within an inquiry community. Curry (2008) found that the protocol used in the critical-friend groups she observed, encouraged involved teachers to deprivatize their practice, and it gave permission to teachers to ask "challenging questions, critique the practice of peers, and offer explicit instructional advice" (p. 764). The study by Curry (2008) extended the findings made by Nelson, Slavit, Perkins, & Hathorn (2008) as it also found the limiting effect of the use of protocol on teachers' inquiry as the protocol employed by the community reinforced "ritualized patterns of discourse" which narrowed down the depth of the inquiry carried out (p. 767). Curry (2008) also found that the decentralized structure of the inquiry groups she observed from formal decision-making bodies had both positive and negative impacts on teachers and their learning. On one hand, being detached from any formal entities within schools enabled teachers to be informal in discussing "contested and sensitive issues" (Curry, 2008, p. 753). On the other hand, decentralization resulted in wasted effort by the teachers within the inquiry groups as

many of the ideas and the proposals raised during meetings were "never systematically documented or pursued" (Curry, 2008, p. 753).

Many of the studies conducted on TICs also focused on knowledge construction within TICs. Studies by So (2013), Tillema & Westhuizen (2006), and Zellermayer & Tabak (2006), for example, explored how knowledge is generated and constructed within TICs. The study conducted by So (2013) on five elementary school teachers and two middle school teachers found that knowledge constructed within the community she observed was not restricted to the inquiry topic as teachers moved beyond "their own thoughts and frameworks" when they reflected on discussions in the TIC (p. 193). She also found that knowledge generated by the teachers was closely related to their teaching practice but was also extended to more holistic issues such as, for example, the national policy or systems which facilitate inclusive education (So, 2013). So (2013) also found that teachers did not accept theories and knowledge formed by others "for its own sake," but they "constructed knowledge about their own teaching practice by bringing these into context of their daily practices" (p. 194). The study conducted by Tillema and Westhuizen (2006) to understand knowledge productivity within three inquiry groups revealed that there was low satisfaction with the knowledge productivity resulting from the groups' efforts. Tillema and Westhuizen (2006) highlighted that prior dispositions and beliefs about knowledge and knowing determines "individual involvement in a collaborative inquiry of knowledge construction" and that lack of problem understanding could hinder open discourse, which is vital to knowledge construction (p. 64). The action research conducted by Zellermayer and Tabak (2006) on academic researchers who facilitate the construction of inquiry communities in school-university partnership, on the other hand, found that participant inquiries, "rather than constructing knowledge that can be applied to professional problem-solving," are vital to learning and change as they create spaces for individual and communal self-reflection (p. 48).

Studies were also conducted to understand the effects of teachers' participation within TICs on teachers' practice. A study by Emerling (2010), for example, attempted to trace the effects of teacher inquiry on classroom practice. His study, which was conducted on four high school science teachers from an urban school, found that collaborative teacher inquiry could lead to evident changes in teachers' practice, but "meaningful instructional changes" were found to be more likely when teachers "work in job-alike teams, are led by trained leaders, use inquiry-focused protocols and have stable settings" which enable teachers to "engage in continuous improvement of instruction" (Emerling, 2010, p. 377). Another study with a similar focus was conducted by Sinnema, Sewell, and Milligan (2011), who attempted to trace the effects of evidence-informed collaborative inquiry for improving the teaching and learning of 26 primary and secondary school teachers. Their study found that evidence-informed collaborative inquiry supported teachers' learning and challenged them to improve their instructional practice (Sinnema, Sewell, and Milligan, 2011). The study also found that some teachers, as a result of their participation in evidence-based collaborative inquiry, became "highly adept" at using evidence-informed collaborative inquiry, and this new skill resulted in teachers making significant shifts in their instructional practice (Sinnema, Sewell, and Milligan, 2011, p. 257). The findings of their study suggest that evidence-informed collaborative inquiry is a powerful approach to teacher learning as it enables teachers to "inquire into, and learn from their own and others' research and practice" (Sinnema, Sewell, and Milligan, 2011, p. 257). Roblin and Margalef's (2013) study conducted on an inquiry community which consisted of five university teachers and a PhD researcher, however, found that collaborative inquiry created interpersonal dilemmas which sometimes interfered with teachers' willingness to collaborate. Collaborative inquiry, according to Roblin and Margalef (2013), also resulted in intrapersonal dilemmas as inquiries on practice "challenged teachers to question their practice and revise their

personal beliefs about teaching and learning" (p. 18). This study also highlighted the vital role of critical reflection as it triggered intrapersonal dilemmas which were found to be vital catalysts to learning and change (Roblin & Margalef, 2013).

Past studies conducted on inquiry communities showed that teacher learning within TICS was a complex process as it was influenced by internal (conversations in the TICs, the types of inquiries, tools, protocol, evidence of practice, prior knowledge and beliefs, problem understanding, facilitators' support) and external factors (time, workplace constraints), which could either hinder or support learning and effects on practice. Most importantly, some of these studies have shown that knowledge was generated and constructed either collectively or individually within communities that took inquiry as stance. Not only that, through collaborative inquiries, studies have proven that teachers could become knowledge productive, which at times led to evident and meaningful changes in their practice. Past studies on TICs have also shown that supports for inquiry contexts and collaborative inquiry processes are vital to teacher learning and change.

Despite this positive development, there is a need for more studies to understand the process of teacher learning in a TIC. One of the reasons for this is because the bulk of the studies on TICs were carried out within the school contexts. Even though these studies provided vital information on the processes of teacher learning within TICs, due to contextual differences, the findings from these studies may not be adequate to guide or to inform similar efforts taking place within universities. The issues and the challenges faced by teachers in schools are starkly different from the issues and challenges faced by university teachers as these two groups of educators are teaching at different levels of education to different groups of students within different workplace environments. As there has not been much research conducted on TICs formed in higher education, there is a big gap in knowledge that needs to be bridged, particularly on understanding how

university teachers' learn within a TIC, what factors support or hinder university teachers' learning within a TIC, and how university teachers' participation in a TIC affects them and their practice. Furthermore, even though there are reported studies conducted in higher education on teacher learning within communities (e.g., Blanton, & Stylianou, 2009; Coronel, Carrasco, Fernández, & González, 2003; Cox, 2003; Laksov, Mann, & Dahigren, 2008), these studies were conducted to understand teacher learning taking place within communities of practice, in general. The only study found which attempted to explore teacher learning within an inquiry community set up within a higher education institution was the one conducted by Roblin & Margalef (2013). According to Levine (2010), different collaborative efforts have different conceptions of community, and they bring about different conceptions of teacher learning. As this is the case, to understand the process of university teacher learning taking place within the context of higher education, more studies on inquiry communities formed within higher education institutions are extremely necessary.

In addition, despite the abundance of research conducted on teacher communities taking place within the context of schools, more studies are vital to shed light on the complex processes of teacher learning within inquiry communities. Not much has been done, for example, to understand the kinds of knowledge teachers develop through inquiry on practice (Kazemi & Hubbard, 2008) and the effects of various influences on teacher learning (Crockett, 2002; Emerling, 2010; Kazemi & Hubbard, 2008; Little, 2002; Opfer & Padder, 2011). Furthermore, most of the studies discussed above (e.g., Bondy & Williamson, 2009; Crockett, 2002; Emerling, 2010 Roblin & Margalef, 2013; Sinnema, Sewell, Milligan, 2011; So, 2013; Tillema & Westhuizen, 2006; Zellermayer & Tabak, 2006) looked into specific processes and activities within inquiry communities but overlooked the complex teaching and learning contextual factors which influenced the processes and activities investigated. Thus, more studies which attempt to understand

the various influential factors on the processes of teacher learning within inquiry communities are required.

The current study is thus vital and timely as not only does it bridge the research gaps in the area of university teacher learning within inquiry communities in higher education, but it also bridges the gaps in knowledge mentioned above.

2.8 Chapter Summary

In the second chapter, important conceptions that provide a general idea of collaborative forms of teacher learning are outlined. A discussion on teacher learning in an inquiry community is also provided. The last section of this chapter addresses the various contextual factors that can hinder or promote learning within a collaborative form of professional development. The following chapter addresses the methodological aspects of this study.

CHAPTER 3: RESEARCH METHODOLOGY

In this chapter, research methodology and the project under investigation are explained. This chapter describes the rationale for adopting a qualitative approach for the study and provides a description of the participants, researcher's roles, research site, and the inquiry community project. The last section of this chapter explains units that are analyzed, procedures of data collection, data analysis, and methods of verification employed to enhance the internal validity of the study.

3.1 Rationale for a Qualitative Design

A qualitative design was employed in this study because of its exploratory nature. This would help in making sense of a complex activity: teacher learning in an inquiry community in its natural setting (Creswell, 2003; Dornyei, 2007). It was also employed to help gain a "complex, holistic picture" (Creswell, 1998, p. 15) and on "finding meanings, perspective and understandings" (Woods, 1999) of the activity of interest from the perspectives of the "local actors" (Miles & Huberman, 1994, p. 6), who were the members of the TIC. A qualitative research design, in other words, would help the researcher carry out an in-depth investigation into teacher learning within the TIC and elicit the meaning participants attached to their experiences (Merriam, 1998).

In this study, a qualitative case study approach was employed because it provided a unique opportunity for the researcher to "observe effects in real context" (Cohen, Manion, & Morrison, 2000, p. 181) and to study the "particularity and complexity of a single case" (Stake, 1995). Furthermore, a case study approach was also appropriate for this study because it allowed an "in-depth description and analysis of a bounded system" (Merriam, 2009, p. 40) — teacher learning that was physically bounded within the context of the TIC and also by the organization that it was set in.

When employing a qualitative case study approach, multiple data collection methods are employed involving mainly the participants at different stages of this study (Creswell, 2003). Using numerous data collection tools allowed a "thick description" that was vivid and situated within its natural context and helped in "revealing complexity" of the activity explored (Miles & Huberman, 1994, p. 10). The flexibility and variety of data collection methods employed provided the researcher with a better opportunity to obtain a thick description of a complex scenario (Merriam, 1998), to find the answers to her research questions, and also to validate the research findings through triangulation of research data.

3.2 The Role of the Researcher

To collect case study data and to gain an "accurate portrayal of the case study" (Yin, 2009, p. 112), the role played by the researcher in this study was as an 'observer as participant,' where the community members were aware of her role as an observer but her participation in the community was secondary to her role as gatherer of information (Merriam, 1998). This would allow her to "perceive reality from someone 'inside' the case study" (Yin, 2009, p. 112). According to Lamb et al. (2009, p. 33) the success of communities that take inquiry as stance lies in the ability of the facilitator to take the role of a "perceived colleague." In other words, he or she is regarded as "one of them." Thus, it was vital that the researcher played the role of an observer as participant as her main objective was to gather and understand the participants' perspectives on their learning experience within the community. Furthermore, members of the TIC might feel uncomfortable if she played the role of a complete observer as the protocol and processes of learning within the TIC would require participants to disclose their problems in their instructional practice.

As a participant in the TIC, the researcher would contribute to the discussions on instructional dilemmas by asking questions, giving opinions and suggestions, and responding to questions directed at her. To ensure that her role as a researcher did not conflict with her role as a participant, the researcher tried her best to separate her "sense of belonging from the need to observe analytically, if not objectively" (McCotter, 2001, p.687). In the beginning, however, this was a struggle as the researcher was often torn between making minimal contributions to the community meetings (as this would enable her to pay attention to the content of the discussion, members' verbal contributions, and also, nonverbal behaviour) and making 'natural' contributions to discussions as they progressed (as this would ensure the members that she was part of the community). To ensure that her role as the participant did not surpass her researcher's role, she made conscious efforts when contributing to group discussions. Keeping reflective notes of her utterances captured in the audio-recordings also helped her be more aware of her contributions as a participant and her primary role in the TIC. When taking field notes, the researcher also tried her best to be as discreet as possible as she did not want the participants to feel anxious of her note-taking.

Her other roles in the TIC other than as observer as participant, was as an administrator and a facilitator of the TIC. As an administrator, she was in charge of 'preparing' meetings and ensuring that logistics, food, stationery and photocopying of materials requested by participants were taken care of prior to the meetings. As a facilitator, the researcher would start the meetings by providing summary of discussions of the previous meeting and inviting members to share, reminding the participants of the protocol, inviting 'passive' members to take part in the discussions, and would 'close' meetings by summarizing what was discussed and items to be discussed in the next meeting. When facilitating the meetings, even though she would remind the participants of the protocol, she often let the discussions take their own course, even when matters

discussed went off-topic. This, she believed was important to ensure that the discussions were 'controlled' by the members. Furthermore, to capture the 'natural' process of teacher learning within the TIC, the researcher did not introduce external materials (e.g., journal articles) into the discussions, or dictate participants' course of action. Any decisions relating to the instructional dilemmas, the measurable actions implemented in the participants' respective classrooms, and evidence of practice that they wanted to share were entirely decided by the university teachers. In other words, even though she held the role of a facilitator within the community, most of the time, the discussions within the community would generally take their own course and the decisions made about learning within the community were left in the hands of the participants.

As the researcher was also a facilitator, it was, at times, difficult to know when and what to contribute to the discussion. Facilitating group discussions also became a conscious effort as she had to ensure that her participation did not influence the directions of the discussions and teachers' actions. Writing reflective notes on her roles as a facilitator within the community kept her contributions in check. This, she felt, was important as it helped her deal with the concerns of crossing boundaries as the facilitator of the community. Her reflective notes also made her more aware of the importance of letting the discussions flow naturally as this would help her capture the process of teacher learning within the TIC as closely as possible.

The next part of the chapter elaborates on the research site and research participants.

3.3 The Case of Pintar International University

Pintar International University (PIU) is a private higher education institution in Malaysia, situated in the Klang Valley. It was established in 1987 and first operated as a college before its upgrade to a university college in 2004. PIU's status was elevated to a

full-fledged university in 2011. Currently, PIU has three other branches, situated in different states within Malaysia: Ipoh, Perak; Johor Bharu, Johor and Kuching, Sarawak.

PIU strives to be the main provider of quality tertiary education in Malaysia. It expands fast, and it builds its reputation through its strategic collaborations with renowned foreign education institutions, for example, Lancaster University, United Kingdom; Manchester Business School, United Kingdom; Victoria University, Australia; Monash University, Australia, and Le Cordon Bleu, France, just to name a few. At present, PIU attracts more than 9,000 students, and currently, its student population is made up of more than 90 different nationalities from around the world.

Like any other private higher education institution in Malaysia, the running of the institution relies heavily on the money raised from student fees. PIU competes with 20 public universities and more than 50 private higher learning institutions in Malaysia (Department of Higher Education, 2012) for student enrolment. To remain competitive, to achieve its mission as a main provider of quality tertiary education, and to meet the global demand for quality education, upgrading the quality of teaching at PIU has become crucial. Significant staff development initiatives have been introduced and implemented at PIU as a way of developing teachers' practice.

One significant effort implemented at PIU to improve the quality of teaching was the formation of the 'Teaching and Learning Unit' in 2007. To improve teachers' professional knowledge and skills, the Unit prepared a selection of workshops and training for the teachers to choose from. Programs prepared were wide and varied, ranging from basic to advanced computer skills, feedback and assessment, strategies in teaching, classroom management, instructional material design, and leadership skills, to research methodology. Teachers at PIU were given the full liberty to select any of the training sessions and workshops at the beginning of each year. Any training or workshops attended would impact teachers' yearly appraisal points. Teachers were required to

choose at least three slots of either training or workshops. Once approved, they would attend the staff development programs they had selected at different times within a year. A teacher, for example, might attend a training session on designing instructional materials in January, a workshop on how to conduct peer observation in July, and another workshop on how to prepare advanced Excel spread sheets in November.

Staff development at PIU often did not revolve around teachers and their teaching. Teachers were rarely consulted during the planning stage and the content of staff development was often pre-determined by expert trainers. During the workshops or training, input was generally linear. The trainer would be the main knowledge or skills provider, delivering information which he or she considered important and sharing his or her anecdotes and experiences within his or her field of expertise.

Most staff development programs at PIU did not last more than a day (maximum 8 hours), and there was often no follow-up or sustained support given to teachers after a workshop or training. After attending a workshop or training, teachers were generally left on their own to employ or experiment with knowledge or skills learnt from the staff development. Furthermore, at PIU, problems in teaching were often discussed in informal ways with very limited opportunities for continuous collective dialogue, reflection, or inquiry. Active collaboration between departments focused mainly on administrative issues and collaboration among peers and mostly concentrated on matters concerning expertise or subject-content knowledge.

With several rival university colleges being granted university status, the building of mega-campuses by other rival private education institutions, and the influx of prominent foreign universities into the Malaysian private higher education arena, the competition for student enrolment has never been keener. To enhance PIU's competitiveness and to achieve its mission as a provider of quality education, there is a critical need to improve staff development at PIU to improve teaching.

The following section describes the participants who took part in the study.

3.4 Participants of the Study

The participants in this study were language teachers who were teaching in various language programs within PIU. All university teachers were Malaysians; one was Malay (ME2), four were Indians (CA3, SA8, and AL1, SU9), and the rest were Chinese (MI4, HE5, LE6, JO7, and NA10). They taught a variety of English language courses such as, for example, English for Specific Purposes courses, Academic English courses, and Communication Skills courses.

University teachers who took part in the TIC volunteered to be part of the community. Even though participation in this study was voluntary, the selection of participants was purposive in that the project was only open to university teachers who were teaching English language courses or/and Communication Skills. According to Yin (2009), it is essential that a case study researcher understands the theoretical or policy issues surrounding the case because of the analytic judgments that have to be made throughout the data collection phase. As English language teaching was also the researcher's own teaching background, gathering participants with similar backgrounds would help her make sense of and attach meanings to events and dilemmas described by the participants and gain insights from the cycles of inquiry carried out among the English language teachers during their discussions.

In the first cycle, eight language teachers volunteered to be part of the TIC. A summary of the backgrounds of these participants is provided in Table 3.1, below.

Table 3.1: Education and Teaching Backgrounds of Participants who Joined the First Cycle

Name	*Unit/ Department*	*Qualifications*	*Years of Teaching*	*Teaching Experience*
AL1	University Compulsory Subjects Unit (UCSU)	-Bachelor in English Language Studies -Master of Science in Information Technology	2	English for Specific Purposes at tertiary level
ME2	UCSU	-Bachelor (Hons) TESL -LLB (Hons)	2	Business English and Communication Skills Course at diploma level
CA3	UCSU	-Bachelor in Linguistics -Masters in Linguistics	5	English for Beginners/ English for Specific Purposes/ Communication Skills Course at degree level
MI4	UCSU	-Bachelor in Linguistics -Diploma in Education	29	English in schools/ English for Specific Purposes at diploma level; Teacher Educator in a Teaching College in Seychelles
HE5	UCSU	-Bachelor (Hons) in English Language Studies -Masters in English Language Studies	2	English for Specific Purposes and Communication Skills Courses at diploma and degree level
LE6	Intensive English Programme (IEP)	-Bachelor (Hons) TESL -Masters in TESL	11	Foundation English/ General English (tertiary level)/ Beginners English
JO7	IEP	-Bachelor in Performing Arts -Degree in Accounting	2	Beginners English/ General English
SA8	Monash University Foundation Year Programme (MUFY)	-Bachelor (Hons) TESL -Masters in Applied Linguistics	11	Beginners English/ Critical Thinking/ Theme study to pre-university students/ Business English (diploma)

The level of participants' expertise varied from novice to veteran university teachers, and their years of teaching ranged from two to 29 years. Four of the participants, SA8, ME2, MI4, and LE6 had teaching qualifications, and four participants, CA3, AL1, HE5, and JO7, lacked teaching degrees but held degrees in other fields. Among all the participants, only CA3, LE6, SA8, and MI4 had prior experience teaching English. The rest did not have experience in teaching English but in other fields. For example, before

joining PIU, AL1 worked as a consultant at an employment agency, ME2 was a remisier with a local bank, HE5 was a personal assistant to a CEO in a shipping company, and JO7 taught drama and theatre to local students. Prior to their participation in the TIC, SA8 had worked at PIU for nearly ten years, JO7 two years, MI4 one year, LE6 three years, CA3 three months, HE5 two years, and AL1 two years.

In the first cycle, all of the teachers were teaching full time concurrently with the project and their teaching hours ranged from ten to nineteen and a half hours per week. The participants' teaching loads and subjects taught are summarised in Table 3.2.

Table 3.2: Participants' Teaching Loads and Subjects Taught During Cycle One

Names	*Teaching Load per Week (hrs)*	*Subjects taught*
SA8	18	Theme Study (Foundation)
ME2	11	English for Nurses (Diploma) Business English 1 (Diploma)
MI4	12	Business English I (Diploma) Business English II (Diploma)
CA3	10	Study Skills (Diploma) (only in the first four weeks of the semester) Communication Skills (Degree)
HE5	11	Basic Communication Skills (Diploma) English for Business and Management Studies (Degree) English for Tourism Service Industry (Degree)
AL1	14	Study Skills (Diploma/Degree) (only in the first four weeks of the semester) English for Business and Management Studies (Degree) English for Computer Technology Studies (Degree)
LE6	19.5	Proficiency English (Intermediate- Written (Level 4)) In-charge of the language lab
JO7	19.5	Proficiency English (Beginners- Written & Oral (Level 2))

In the second cycle of the study, the number of the participants grew from eight to ten. Two university teachers, SU9 and NA10, who had heard about the TIC from their colleagues, volunteered to become members of the community (Table 3.3). Both were Malaysians. SU9 was Indian and NA10 was Chinese. The teachers' voluntary

participation in the TIC was fortunate because two community members, AL1 and HE5, were not able to attend the meetings in the first five weeks of the second cycle. AL1 met with a road accident and was absent from work for five weeks. HE5, on the other hand, had a personal family matter to take care of every Friday for the first five weeks.

SU9 had been teaching English language proficiency courses after she completed her TESOL training. Prior to teaching, SU9 worked as a customer service representative with Pos Malaysia (National Postal Service) for over 25 years. NA10 on the other hand, had extensive experience in teaching English to students of various levels. She had taught in Singapore before coming to Malaysia to teach. Prior to her participation with the community, SU9 and NA10 had worked as language teachers at PIU for five and 18 years, respectively. The backgrounds for these participants are summarised in Table 3.3, below.

Table 3.3: Education and Teaching Backgrounds of Two Participants who joined the Community in the Second Cycle

Name	***Unit or Department***	***Qualifications***	***Years of Teaching***	***Teaching Experience***
SU9	IEP	Certificate in TESOL	5	Beginners English/ General English
NA10	Victoria University Enrichment Program	Bachelor in English and History Diploma in Education	24	Beginners English/ General English/ Theme study/ Enrichment English

NA10 and SU9 joined the community in the first session of the second cycle. HE5 and AL1 re-joined the community in the second half of the second cycle. Similar to the first cycle, the teaching for the semester was progressing concurrently to the project and their teaching hours ranged from 12 to 19.5 hours. As shown in the summary of teaching loads for participants in Cycle Two, presented in Table 3.4.

Table 3.4: Participants' Teaching Loads and Subjects Taught during Cycle Two

Names	***Teaching Load per Week (hrs)***	***Subjects Taught***
SA8	18	Theme Study (Foundation)
ME2	13.5	English for Nurses (Diploma) Business English 1 and 2 (Diploma) Public Speaking and Presentation Skills (Diploma)
MI4	14	Business English 1 and 2 (Diploma) Study Skills (Diploma)
CA3	13	English for Business and Management Studies (Degree) English for Psychology (Degree) Communication Skills (Degree)
HE5	12	Business English 1 and 2 (Diploma) Study Skills (Diploma)
AL1	14	Business English 1 and 2 (Diploma) English for Business and Management Studies (Degree)
LE6	19.5	Proficiency English (Intermediate- Written (Level 4)) In-charge of the language lab
JO7	19.5	Proficiency English (Beginners- Written & Oral (Level 2))
SU9	19.5	Proficiency English (Intermediate- Written & Oral (Level 3))
NA10	19.5	Enrichment English

Nine university teachers took part in the third cycle of the study. LE6 was unable to participate in the third cycle because she was on early maternity leave. Unlike in the first and second cycle, not all the teachers who took part in the third cycle were teaching when the project was ongoing. NA10, for example, only started teaching when the TIC was in its seventh week. HE5 was not assigned any classes because she had only just returned from her maternity leave. The rest of the teachers were teaching parallel to the project. However, since it was a short semester for UCSU, their teaching load was low and they were only teaching for seven weeks. Another significant change was SA8's transfer from MUFY to the UCSU. Table 3.5 gives the information on the teaching loads and subjects taught by each participant in the third cycle of the project.

Table 3.5: Participants' Teaching Loads and Subjects Taught during Cycle Three

Names	*Teaching Load per Week (hrs)*	*Subjects Taught*
SA8	8	Business English 1 (Diploma)
ME2	6	Business English 2 (Diploma)
MI4	6	Business English 2 (Diploma)
CA3	3	Study Skills (Diploma)
HE5	0	No teaching allotted
AL1	8	English for Computer Technology Studies (Degree)
JO7	18	Proficiency English (Beginners- Written & Oral (Level 2))
SU9	18	Proficiency English (Intermediate- Written & Oral (Level 3))
NA10	18	Enrichment English

All of the university teachers provided various reasons for volunteering to be part of the TIC. CA3, AL1, SU9, HE5, SA8, and LE6 were looking for ways to improve their instructional practice: ME2 and JO7, being new university teachers, hoped to build their pedagogical knowledge; MI4, being a very experienced teacher, was looking forward to the sharing of novel ideas and strategies in teaching; and NA10, another experienced teacher within the teacher community, was seeking endorsement for the Enrichment Program that she prepared and ran, and like MI4, she was also looking for new ideas and strategies in teaching. Prior to their involvement in the project, all of the university teachers who volunteered to be part of the TIC reported seeking help from other colleagues or peers as the main strategy employed when they faced problems or dilemmas in their instructional practice.

The primary informants in this research were the university teachers who were members of the TIC. In making sense of the learning processes in the TIC, the effects of participation on university teachers and their practice, and the contextual factors that influenced the learning processes, the perspectives of the university teachers (emic) who were members of the TIC were gathered and analyzed (Merriam, 1998).

The next part of this chapter explains the different language programs at PIU.

3.5 Language Programs at PIU

Because English is the main language of instruction at PIU, English instructional supports are available to students at different levels. All Pre-university, Diploma, and Degree programs at PIU have compulsory English language subjects embedded within their programs. Students who want to enrol in either a Pre-University, Diploma or Degree program, but do not meet the English language requirements, are required to enrol in an Intensive English Language Program or in an Enrichment English Program (specifically for the Victoria University Business Degree Program). The teachers who took part in the project were attached to different university programs in PIU.

CA3, HE5, MI4, and ME2 were part of the University Compulsory Subjects Unit (UCSU). This unit catered to the English language needs of Diploma and Degree students of PIU's home-grown program, which was a partnership program between PIU and Lancaster University, United Kingdom. Under this program, CA3 and HE5 taught various degree and diploma language courses, which covered academic and business writing, and communication skills. MI4 and ME2, on the other hand, taught Business English or/and communication skills to Diploma students. All the language courses under UCSU were compulsory subjects, and all students under the home-grown program were required to take and pass the language courses offered. The language courses were offered in the long semesters, which run between March and July and August and December (14 weeks per semester), and in the short semester, which runs from January to March (seven weeks per short semester). There were three student intakes per year. The English language proficiency level of students enrolled in the home-grown program ranged from lower-intermediate to advanced level.

JO7, LE6, and SU9 taught English proficiency courses for the Intensive English Program (IEP), which was run by the Language and Compulsory Subjects Centre (LCSC). Most of the students who enrolled in this program were students who wanted to

pursue their studies at the university level but did not meet the university language requirement. The IEP, which was a full-time intensive English proficiency and preparatory program, prepared students for their studies at the university level. Students would go through four instructional levels (from elementary to intermediate level) within four semesters (or longer, if they failed) to graduate from the IEP. Language components and skills covered within these levels were writing, reading, speaking, and listening. Students were divided according to their levels of proficiency in the English language. Those who joined IEP at level one would be at the beginner level. Those who were at level four were generally at the intermediate level. The program would run for 10 weeks with about 200 contact hours per semester. There were four semesters in a year and four intakes of students per year.

SA8 was attached to a pre-university program, the Monash University Foundation Year (MUFY) program, during the first and the second cycle before joining UCSU in the third cycle. The MUFY program was a pre-university foundation program which prepared students for a transition into undergraduate studies at either Monash University or other foreign universities. Under the program, English subjects, which included 'Theme Study,' were compulsory subjects that all MUFY students were required to pass. Each semester ran for 18 weeks with three intakes in a year. Levels of English language proficiency of the students who enrolled in the MUFY program ranged from higher-intermediate to advanced level.

NA10's Enrichment English Program prepared university students who were enrolled in Victoria University Business School to meet the language requirement of their university courses. All of NA10's students were degree students who had enrolled under one of the Business programs offered by Victoria University, Australia, but because they did not meet the language requirement set, they were required to take and pass the Enrichment English program, first. Students enrolled in her language program were

generally students who were at the lower-intermediate level of proficiency in the English language. The program ran for 18 weeks, and it was an intensive course with high contact hours of ten hours per week, which accumulated to 180 hours per semester. NA10 was the only one in charge of the Enrichment English Program. She designed the course with the guidance and advice from the Head of Department of the UCSU, but ran the course on her own.

The next part of the chapter explores the project under investigation, the TIC project.

3.6 The Teacher Inquiry Community Project

Since the TIC was a newly introduced staff development program, the community had to first be formed. The recruitment process involved the dissemination of information about the TIC through e-mail to individual teachers and department heads and also during department meetings. When participants were identified, meetings were held with the Heads of Department of various language programs to discuss issues concerning teacher participation in the TIC, class scheduling, and rewards for participation. Through these meetings, approvals were gained resulting in the blocking of the participants' time tables (every Friday from 12 noon to 2pm for the period of three semesters) and the promise that teachers taking part in the TIC would be rewarded accordingly in their yearly appraisal. Once this was taken care of, a meeting was held with an administrator in charge of logistics to provide a venue for the meetings of the TIC.

Before the start of the first cycle of the TIC meetings, participants were briefed about the concept of teacher learning within a TIC, the processes and protocol employed, the role of the researcher, the researcher-generated document that they had to complete after each meeting, ethical issues involved, and other administrative matters. Administrative matters pertaining to logistics, food, stationery, and photocopying of

materials that participants wanted to share were taken care of by the researcher prior to the meetings.

To guide the inquiry and reflection process during the meetings, a consultancy protocol was adopted. The protocol used in this study was an adaptation of the cycle of inquiry proposed by an initiative of the Bay Area School Reform Collaborative (BASRC) reported by McLaughlin and Zarrow (2001) and the consultancy protocol designed by Thompson-Grove, Evans and Dunne (2009) from the National School Reform Faculty, United States. Each weekly meeting of the TIC followed the six-step inquiry approach proposed by BASRC: 1) propose a broad problem statement, 2) refine the problem statement and focused effort, 3) identify measurable goals; 4) build concrete action plans, 5) take action, 6) analyze results from data. The cycle would then reconnect with the first step "as the problem statement is refined in light of new evidence" (McLaughlin & Zarrow, 2001, p. 80).

The activities carried out during each meeting were also governed by the consultancy protocol designed by Thompson-Grove, Evans, and Dunne from the National School Reform Faculty, United States. According to Thompson-Grove, Evans, and Dunne (2009), a consultancy is a structured process to help a team think more expansively about a particular, concrete dilemma. The consultancy protocol provided further scaffolding and guidelines for the activities carried out in the TIC. It was similar to the cycle of inquiry proposed by BASRC, but it provided clearer suggestions on how each step was to be carried out.

The cycle of inquiry proposed by BARSC was combined with the consultancy protocol because the cycle proposed by BARSC emphasized identifying measureable goals and concrete action planning and also evidence-based inquiry. This was lacking in the cycle of inquiry proposed by Thompson-Grove et al. (2009). The formation of measurable goals and the use of evidence-based inquiry were vital as it would help in

making the teachers' instructional problems more concrete, make the learning process more explicit, and it could also validate progress or changes in teachers' practice. The use of evidence-based learning is also supported by Ball and Cohen (1999), who identify two elements that are important in an inquiry-based framework towards teacher learning: crucial questions about teaching and learning and evidence of professional work.

Based on the proposed inquiry cycle and the consultancy protocol, participants in the inquiry community were involved in the activities as shown in Figure 3.1. The meeting would start with a teacher sharing a problem or a dilemma faced in instructional practice. Evidence of practice could be shared even in Step 1 if the problem shared concerned, for example, students' written work. This would then be followed by a session where other members would ask critical questions to clarify, probe, and to refine the problem shared. In the next activity, members would discuss the teacher's problem or dilemma. While this was ongoing, the teacher with the dilemma was required to take notes of any suggestions or actions that could be applied in her classroom to 'solve' or further understand the problem, or to write down reflections on the issues concerning the problem as discussed by the group. This activity was then followed by a session where the teacher shared reflections and future plans to remedy the situation. In the next step, the teacher and the group would discuss measurable goals and concrete action planning to be implemented in the teacher's classroom. The teacher would then implement the action plans and collect data or evidence to share with the group. The teacher was required to keep any evidence resulting from her implementation of the action plan as it would be shared with and analyzed by the group in the next meeting.

In a follow-up discussion, the teacher shares the result of her implemented action and this would restart the cycle as it would be another platform of inquiry to analyze and understand the instructional problem more thoroughly. The discussion at this stage would be supported by evidence gathered as a result of the implemented action, which could, for

example, be students' writing samples, video-recording of teaching, or reflective accounts of classroom events. The cycle of sharing on a dilemma would only be completed if the teacher felt that she had understood or 'solved' the problem or dilemma faced. After each meeting, teachers were required to complete a researcher-generated document, i.e., the qualitative (open-ended) questionnaire to capture what they thought of a session and their reflections on what they learnt during a sharing session, and how the knowledge learnt could impact their practice.

Before each TIC meeting, participants were given lunch, which was served at the back of the 'meeting room' (a classroom converted into a meeting room). After lunch, the researcher would start the meeting by recapitulating the sharing of the previous meeting. She would invite teachers who had shared their dilemmas in the previous session to share any evidence they had collected, or to report the outcome of an implementation of an action plan, or for other teachers to share their problems in practice. During the discussion on a dilemma, participants would be guided through the stages as defined in the protocol. At the end of a discussion on an instructional problem, the teacher who shared it would be required to share some thoughts or future plans to solve the instructional dilemma being faced, based on the sharing. At the end of each meeting, the researcher would recapitulate the main items or issues discussed and would list down what was to be expected in the next meeting.

The inquiry community project was carried out over three semesters, approximately within 10 weeks per semester. Within the mentioned period, 30 weekly meetings were held to discuss and understand dilemmas or problems teachers faced in their instructional practice and find solutions to the dilemmas shared through the cycles of inquiry and reflection that teachers went through during each session. Teachers were encouraged to attend the meetings, and since participation was voluntary, teachers' attendance to the meetings was left up to them.

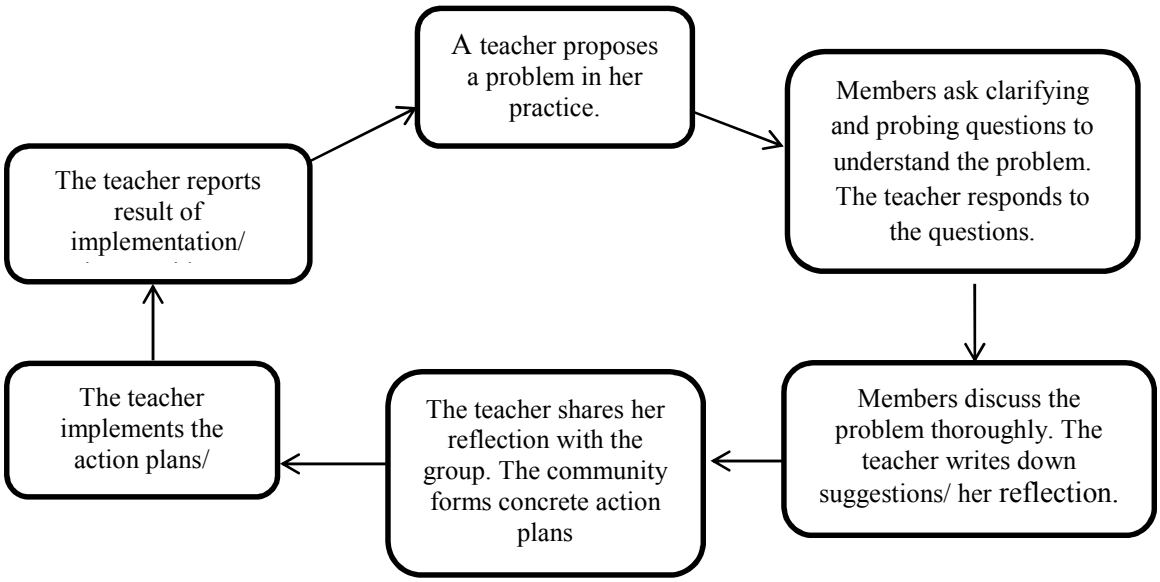

Figure 3.1: The Cycle of Inquiry in the TIC

3.7 Units of Analysis

To understand situated learning within a complex environment, Borko (2004) suggested a multifocal perspective — one perspective focuses on the individual as a unit of analysis and another perspective is to scrutinize the social systems in which individuals participate. To explore the situated context of teacher learning within the TIC, group learning processes were identified as one unit of analysis, and individual teacher learning processes were identified as another. To understand the situated learning that took place within the TIC, collective learning trajectories were recorded and analyzed. To understand individual teachers' learning trajectories, teachers' reflection on events taking place within the inquiry community and their own classrooms were made explicit, gathered, and analyzed.

Addressing the learning situation through multiple perspectives has been employed by a number of studies conducted to analyze situated learning within learning communities. Cobb and Bowers (1999, p. 8), in their analysis of students' situated learning of mathematics, identified the individual students as a unit of analysis since, from the situated perspective, there is "an explicit focus on individual meaning." Another

aspect that they focused on was on the "broad community processes" to understand the social context in which students were situated. A study conducted by Little (2002) to locate learning within teachers' communities of practice also employed a multi-level case study approach where "professional development at the levels of individual experience" and the "professional community" were analyzed. This multi-focal approach employed to understand learning within communities was supported by Kazemi and Hubbard (2008, p. 435), who emphasize the need to relate "teachers' collective trajectories in the professional learning content to the individual learning trajectories inside the classroom" particularly when one wants to understand the impact of participation in professional development to individual teacher's instructional practice.

3.8 Data Collection

To explore the case of teacher learning within the TIC, multiple methods of data collection were employed. Data were collected through (a) observations, (b) audio-recorded materials, (c) research-generated documents (Merriam, 1998) (i.e., qualitative questionnaires), (d) analysis of classroom artifacts, and (e) interviews. Employing multiple data collection methods enabled the researcher to develop "converging lines of inquiry" as part of the process of triangulating the data (Yin, 2009, p. 116). Such a strategy also increased the construct validity of the study because the "multiple sources of evidence essentially provide multiple measures of the same phenomenon" (Yin, 2009, p. 116).

3.8.1 Participant Observation

"Participant observation" refers to "methods of generating data which involves the researcher immersing himself or herself in a research setting, and systematically observing dimensions of that setting, interactions, relationships, actions, events" (Mason,

1996, p. 60). In this study, to gather data on the process of situated teacher learning in the TIC, it was vital that the sessions were observed. Observing sessions helped the researcher in capturing (a) first-hand data on the setting in which the sessions took place; (b) the teachers' reactions and the nature of interactions that revolved around the dilemma raised and the evidence of practice brought into the community; (c) the flow of discernible events that took place within each TIC meeting, specifically on the processes occurring within it; (d) the types of knowledge, skills and values generated from the discussions carried out in each meeting; and (e) the factors within the TIC perceived to either promote or hinder interactions and thus learning. Conducting observations made it possible for the researcher to "record behavior as it is happening" (Merriam, 1998, p. 96). In this case, she was able to witness teacher learning in action. Furthermore, observations helped in "providing knowledge of context" or provided "specific incidents or behaviors" that could be raised during interviews with the participants (Merriam, 1998, p. 96). Another advantage of observing the site was the opportunity to triangulate the data that was gathered during observations with the individual teachers' reflections on the group and individual learning processes recorded in the qualitative questionnaires and the interviews conducted with the participants.

To provide structure and to guide the observation process, an observation protocol was designed and used (Appendix A). The observation protocol helped gather data on the following: (a) the setting of the meetings; (b) the participants' nonverbal reactions during the meetings; (c) the nature of interactions; (d) how shared classroom artifacts impacted interactions and teacher learning; (e) the types of knowledge, skills or values generated from a sharing session; (f) the contextual factors that could hinder or promote learning in the community; and (g) other issues or themes that struck the researcher in each contact. During each session, with the observation protocol to guide her, the researcher wrote down field notes, which were the written accounts of the observation (Merriam, 1998).

The ongoing analysis of data retrieved from her observation of each meeting is explained in the later part of this chapter.

3.8.2 Audio-recorded Material

Another source of data came from the audio-recordings of the TIC meetings. The audio-recordings of the interactions of each TIC meeting provided the researcher with several opportunities: they could be replayed and could be studied again and again (Sacks, 1992); they became concrete evidence of the events that took place within each meeting which gave opportunities for the researcher to look at what was being studied (Sacks, 1992); and they helped her to focus on the "actual details" of one aspect of social life, which was teacher learning in the TIC (Silverman, 2005, p. 184). In order to understand such complex activity, relying only on field notes would have been inadequate. The complexity of the events during each session required another source of evidence to support observations made of the sessions. Not only that, one of the research questions addressed the need to explore and understand the processes of teacher learning within the community, and this required the analyses and the categorization of interactions during each session in order to understand the processes. The audio-recorded interactions were, in other words, vital as they supported the researcher's observations and provided concrete evidence of how teachers generate and process knowledge and the types of knowledge generated during community meetings.

For analysis purposes, the audio-recording of each meeting was transcribed. Producing transcriptions of recorded interactions of each meeting involved repeated listening to the audio-recorded interactions. The content of the transcriptions were then analyzed and codes and categories were assigned to the units of interactions taking place within each session. Details of analyses of these units of interactions will be explained later in the chapter.

3.8.3 Researcher-Generated Document

The other data collection tool that was used in the study was a researcher-generated document in the form of qualitative (open-ended) questionnaire (Appendix B). According to Merriam (2009, p. 149), researcher-generated documents are documents prepared by the researcher to help her "learn more about the situation, person or events being investigated." Since the TIC meetings were unique and different from one another, to understand both the group and individual teachers' learning processes within the TIC, a data collection tool that would capture participants' opinions of and reflections on their learning experience in each session was needed. To do so, a qualitative (open-ended) questionnaire was designed, and teachers were required to complete the questionnaire after participating in each meeting. The qualitative questionnaire contained a number of open-ended questions designed to elicit information on the following: (a) what the participants thought of the session attended, (b) what they thought they had learnt, (c) what they thought they would transfer to their instructional practice, (d) what they thought impacted the learning process within the community, and (e) other matters that they would like to raise. Prior to the study, participants were e-mailed a blank qualitative questionnaire. After attending a session, they were required to complete the questionnaire before the next TIC meeting. Completed qualitative questionnaires were then gathered and processed.

The data collected through this tool helped the researcher triangulate the data gathered from her observations and the transcribed interactions. It also provided her with the emic perspectives of the participants on group and individual processes occurring within the teacher community, the possible effects of participation on teachers, and the contextual elements that impact learning within the TIC. Data gathered from the qualitative questionnaires also provided her with valuable contextual information on

specific incidents or events that could be brought up during the interviews with participants.

It is important to note that the qualitative questionnaire played a dual role, one as a data collection tool and another as a reflective tool for the teacher. The qualitative questionnaires helped teachers to reflect on the sharing within the community and on their practice.

3.8.4 Analysis of Classroom Artifacts

Another type of document analyzed in the study, other than the research-generated documents (i.e., the qualitative questionnaires), were the documents or classroom artifacts that emerged from the sharing within the community: for example, students' written work, teachers' reflections, instructions for language tasks, and interviews between teachers and their students. According to Merriam (2009), artifacts are physical objects found within the study setting. Observing teachers' use of these artifacts during the meetings helped the researcher understand how they impacted interactions and teacher learning. Analysing the content of these documents/artifacts could also help in "tracking change and development" (Bowen, 2009, p. 30). When analysing classroom artifacts, for example, students' written work that was produced as a result of an implemented action plan, the researcher was able to identify or locate changes in teachers' practice. When analysing these classroom artifacts, focus was on the following: the content of each document/classroom artefact, events and contacts with which the document/artefact was associated, and how it was used during the discussion on an instructional problem (Appendix C).

3.8.5 Interviews

Another method of data collection utilized in this research were in-depth and focused interviews. In-depth interviews, according to Dornyei (2007, p. 136), are suitable when a study "focuses on the deep meaning of particular phenomena or when some personal historical account of how a particular phenomenon has developed is required." In this study, data were collected through in-depth interviews carried out with participants prior to and after the completion of each cycle. Pre-project, in-depth interviews were conducted to understand the following: (a) teachers' working experience, (b) their teaching backgrounds, (c) how they describe themselves as teachers, (d) their beliefs about teaching and students' learning, (e) what they have done so far to improve their teaching, (f) the aspect(s) of their teaching that they think is/are problematic, (g) the strategies that they have employed to overcome problems faced in their teaching and whether the strategies are working, and (h) their opinions on whether it is important to have a platform to talk about teaching and learning. The pre-project interview was important as it provided the researcher with a holistic picture of who the participants were as teachers — their backgrounds, beliefs, their perception of their teacher identities, and their approaches to handling problems in their practice (Appendix D).

Post in-depth interviews were also carried out after teachers had participated in each cycle. For the first and second cycle, the in-depth interviews conducted were to understand teachers' perceptions on the following: (a) individual teacher's experiences of being in the inquiry community; (b) what they learned from the discussions/interactions taking place within the TIC; (c) how they learned new knowledge, gained new skills, and/or embraced new values; (d) any effects of their participation on their teaching approaches, beliefs, and/or practice; (e) aspects of the inquiry community that promote or hinder learning; (f) the most memorable session and why; and (g) ways to improve their experience of being in the inquiry community (Appendix E & F). The last post in-

depth interviews conducted were more extensive than the previous two. The post in-depth interviews after the third cycle were carried out to understand the following: (a) their motivations and expectations associated with joining the community and whether their expectations were met; (b) their general experience of being in the community; (c) the cycle(s) which they learned most from and why; (d) how they learned new knowledge, skills, and/or values; (e) what was learnt from the sharing (new knowledge, skills, values, or habits); what was transferred to practice; (f) what they perceived as changed (beliefs, perceptions, practice) as a result of their participation in the TIC; (g) factors that supported and hindered learning; (h) the role that evidence of practice played; (i) factors that impacted their transfer of knowledge learned into practice; and (j) whether they would participate in similar staff development efforts in the future (Appendix G).

Data derived from these interviews were vital as this made explicit the individual teachers' learning trajectories and their opinions on the group learning trajectories. Not only that, data derived from this source also helped in triangulating the information gathered from the researcher's observations, analysis of the audio-recorded material, and the findings from the qualitative questionnaires.

Interview protocols were utilized for all in-depth interviews. The interview protocols enabled the researcher to organize and structure the interviews (Creswell, 1998). Even though a set of standard questions for participants was prepared, some of the questions asked during an interview varied from one participant to another. This was because each participant's experience in the TIC was unique, and thus what needed to be clarified differed from one participant to another. Not only that, most of the interviews were exploratory in nature. Because of this, the questions asked were dependent on the responses given to the interview questions.

Another type of interview — focused interviews — were also conducted with some of the participants. Focused interviews were carried out in a shorter period and were

often guided by a set of questions (Yin, 2009, p. 107). Focused interviews were conducted only when a quick clarification and justification on the following were required: (a) participants' remarks or behaviour during a TIC meeting; and (b) participants' remarks, feelings, and their experience that were disclosed in the qualitative questionnaires. For example, sometimes, a participant's answers in the qualitative questionnaire were unclear and at times confusing. Short, focused interviews were conducted with some participants to ask them what they actually meant. This was recorded and added to the data that were gathered.

3.9 Data Analysis

In this study, a directed qualitative content analysis was employed to make sense of the data collected (Zhang & Wildermuth, 2009). Content analysis that employed a directed approach utilized a more structured process where key concepts or variables from previous studies were used as initial coding categories (Hsieh & Shannon, 2005; Zhang & Wildermuth, 2009). Data analysis was ongoing. It was carried out during and after the project. The analysis of data after each inquiry community meeting comprised the following process: Step 1) Preparing the data; Step 2) Producing contact summary sheets; Step 3) Identifying meaning units; Step 4) Assigning codes to meaning units; Step 5) Creating categories and subcategories from codes; Step 6) Building themes from categories; and Step 7) Drawing conclusions and verifications.

According to Zhang and Wildermuth (2009), the first step in qualitative content analysis is preparation of data, where data is transformed into written form. What was done after each TIC meeting was to transcribe the interactions in each meeting, verbatim. The focus when transcribing these interactions was on the meanings and perceptions constructed by the participants through speech (Oliver, Serovich, & Mason, 2005, p. 1274). In transcribing the interactions, some of the features of the oral language were

preserved, and any grammatical mistakes were left uncorrected as this would "maintain the representation or authenticity of lived experience" (Widodo, 2012). Other than that, since the focus was more on content and meaning, other idiosyncratic elements of speech were removed from the transcription (Widodo, 2012).

In the earlier stage of data analysis, contact summary sheets were prepared to give focus or to summarize questions about a particular contact (Miles & Huberman, 1994). A contact summary sheet was prepared for every observation of the TIC meetings, the gathered qualitative questionnaires after each meeting, and classroom artifacts (tools) that surfaced during each meeting. In each summary sheet, the researcher summarized what was gathered from each contact and wrote her reflective remarks and the questions that would be answered in the next contact (Miles & Huberman, 1994). This practice was found to be very useful as it helped her gather "thoughtful impressions and reflections," and it made them easily retrievable for future reflection (Miles & Huberman, 1994, p. 52).

The next stage of data analysis was data reduction, which refers to "the process of selecting, focusing, simplifying, abstracting, and transforming the data gathered" (Miles & Huberman, 1994, p. 10). At this stage, data was abstracted from the four data sources, participant observations, the transcribed interactions, the qualitative questionnaires, and the analysis of classroom artifacts. Abstracting data involved the process of creating "codes, categories and themes at varying level" (Graneheim & Lundman, 2003, p. 106). Meaning units were first identified in the written data. Meaning units, or coding units, are "the constellation of words and statements that relate to the same central meaning" (Graneheim & Lundman, 2003, p. 106). These meaning units were then condensed, and they were openly coded. To guide the process, the research purpose and questions were often reflected upon (Berg, 2009), and reference was made to key concepts which emerged from past studies (Hsieh & Shannon, 2005; Zhang & Wildermuth, 2009). After

codes were identified, they were then clustered under categories. A category is identified as "thread throughout the codes" (Graneheim & Lundman, 2003, p. 107). To guide this process, a list of categories from the literature was generated (Zhang & Wildemuth, 2009). Some of these were used and new categories were also created to identify the clusters of codes identified. After this stage, themes were created to link the underlying meanings in categories together (Graneheim & Lundman, 2003). It was very easy to get lost and confused in the whole process. To prevent this from happening, another teacher from another higher education institution who had extensive experience in English language teaching was involved in the process to assess the coding.

According to Merriam (2009), during the more intensive phase of data analysis for a case study, all the information about the case that is derived from multiple data sources should be brought together in order to convey an understanding of the case. To accomplish this, a case report was produced where the findings of the analyses of data and researcher's reflections were merged. In the case report, conclusions and verifications were drawn from the analyses of the different data retrieved from the case and also the reflective remarks that were recorded in the contact summary sheets. This process was repeated for each TIC meeting. Triangulation of data was done during the processing of data retrieved from each TIC meeting. To strengthen the research findings, however, the researcher also compared the findings between the meetings. This enabled her to have a better understanding of the events and the learning processes taking place within the TIC. The earlier mentioned teacher was also appointed to check the researcher's interpretations and the conclusions she had drawn from her analyses. A description of data analysis after each TIC meeting is displayed in Table 3.6.

Once a cycle was completed or after ten meetings, the participants were then interviewed. The data retrieved from each interview then underwent the process of abstraction where meaning units were coded and categories were produced and placed

under themes. These findings were then triangulated with the findings retrieved from the analyses of data retrieved from the TIC meetings. Conclusions and verifications were then drawn on group and individual teachers' processes, the contextual factors that affected the identified processes, and effects of participation on teachers and their practice. This process was carried out after each cycle was completed.

3.10 Methods for Verification

A number of strategies were used to enhance the internal validity of the study. These were triangulation, members' check, long term observation, and peer examination (Merriam, 1998). To confirm findings in this study through triangulation, data were derived from multiple sources (Merriam, 1998): observation, researcher-generated documents, recorded interactions of meetings, analyses of classroom artifacts, and interviews. Data derived from these sources provided varied and converging perspectives on the activities being investigated, and it helped the researcher to confirm emerging findings (Merriam, 1998). Another strategy utilized in this study to enhance its internal validity was carrying out members' checks. At the end of each cycle, participants were required to check the credibility of the interpretations made by the researcher (Merriam, 1998, p. 204). Participants raised their concerns, agreement, or disagreement with the interpretation made by the researcher through the members' checks.

To further enhance the internal validity of the study, it was also carried out over a long period; in this case, over a one-year period. During this period, the activity of interest was repeatedly observed and data gathered were continuously analyzed.

Another strategy used in this study to ensure internal validity was peer examination. In this study, the assistance of another language teacher who had extensive teaching experience in English language teaching was sought to comment on the coding

and the interpretations made by the researcher from her analysis of data derived from multiple sources.

3.11 Ethical Issues

According to Yin (2009), when conducting case study research, the researcher needs to address ethical issues concerning human subject protection. To protect the participants taking part in the case study research, the following were carried out: (a) gaining informed consent from participants by informing the participants of the nature of the case study (Appendix H), (b) avoiding the use of deception in the study, and (c) protecting the privacy and confidentiality of the participants (Yin, 2009).

During the briefing for the project, all the participants were informed of the nature of the research, the danger and the obligations involved, and that they were taking part in the research on a voluntary basis (Bogdan & Biklen, 2003). This was done before written consent was signed by the participants. To avoid the use of deception in the study when handling delicate matters, for example, when a teacher disclosed a problematic aspect of her instructional practice that might be against teaching ethics, the researcher presented this as "general information and not specific information" (Creswell, 1998, p. 113) in her writing.

To protect the privacy and confidentiality of the participants, all participants were assigned codes to represent them and not their real names (Creswell, 1998). In addition, the researcher did not share information with irrelevant others at the research site (Bogdan & Biklen, 2003) as this would jeopardize the confidentiality and privacy aspects of the study.

Another ethical issue that the researcher had to deal with was the "potential biases" produced when a researcher holds the role of 'observer as participant' (Yin, 2009, p. 113). The first potential bias is the possibility of the researcher being asked to hold

roles that are contrary to good social science practice, the second involves the likelihood of the researcher to "become a supporter of the group or organization being studied," and the third potential bias is the participant role may become primary to the role of the observer, which may impact collection of data (Yin, 2009, p. 113).

To prevent such biases from impacting the credibility of the case study conducted, the following steps were taken. Prior to the project, she briefed members of the TIC of the acceptable roles that she could play in the community. This was important to ensure that the members of the TIC understood that, as a researcher, she could not hold roles that would influence the outcomes of the activities carried out in the inquiry community. To ensure that her role as a participant did not become a primary role in the TIC and to ensure that she did not become the "supporter of the group," the researcher also wrote reflective notes based on the analyses of her utterances captured in the audio-recordings. This kept her on guard regarding the roles that she played within the TIC, and constantly reminded her of her role as a researcher within the TIC. Writing reflective notes and analysing her utterances during each session also helped her be aware of any influences that she might have on the learning processes within the TIC. These strategies guided her contributions during the meetings and helped reduce the probability of her influencing the process of teacher learning taking place within the community.

3.12 Limitations and Delimitations of the Study

One limitation of this study is that it was conducted within an organization that the researcher was a part of. Being part of the educational context in which the TIC existed helped the researcher to understand the organizational or workplace influences on teacher learning within the TIC. However, studying one's own organization or immediate work setting may lead to "compromises in the researcher's ability to disclose information and raises difficult power issues" (Creswell, 2003, p. 184). According to Creswell (2003), if

studying the "backyard" is necessary, a researcher needs to employ multiple strategies of validity to create readers' confidence in the accuracy of the findings. These strategies were explained under 'Methods for Verification.'

One main delimitation of this study is that it only examined the process of teacher learning within a single entity, which was the TIC formed in PIU. The scope of this study was also limited to understanding the contextual factors and teacher learning processes taking place within a TIC formed within one private higher education institution, which was PIU. The reason for doing so was because of the need for an in-depth investigation on a case in order to understand a complex process, which was the process of teacher learning within the TIC.

The other delimitation of the study is that it only relied on university teachers' narratives and sharing of artifacts or evidence of practice to track changes in university teachers' practice. In addition, the study did not include the aspects of students' learning to understand the effects of university teachers' participation within the TIC on the university teachers and their practice. This was because the central focus in this qualitative study was on the processes of teacher learning within a community that took inquiry as a stance, the multiple contextual factors that influence teacher learning within the community, and the application of knowledge or skills to practice. Further studies are thus recommended to explore the effects of teachers' participation in inquiry communities on students' learning.

3.13 Chapter Summary

This chapter outlines the methodology employed in this study. It addresses the rationale for adopting a qualitative case study research approach. In this chapter, information on the role of the researcher, the research site, profiles of the participants, and details of the teacher inquiry project are also disclosed. This chapter also identifies

the units analysed in this study, the data collection and analysis procedures, methods of verification, and ethical issues addressed.

Table 3.6: Data Analysis for Each Teacher Inquiry Community Meeting

Meeting	Data Collection Method	Ongoing Data Analysis		
One	Observation	Recording reflections in contact Summary Sheet for Observation	Abstracting Data: building codes, categories, and themes	Data was merged. Conclusions and Verifications were drawn. CASE REPORT 1 was produced.
	Audio-recorded interaction (during meeting)	Data preparation: Transcribing Audio-recorded interaction	Abstracting Data: building codes, categories, and themes	
	Qualitative Questionnaire (QQ)	Recording reflections in contact Summary Sheet for QQ	Abstracting Data: building codes, categories, and themes	
	Analysis of classroom artifacts	Recording reflections/analysis in contact Summary Sheet for classroom artifacts	Abstracting Data: building codes, categories, and themes	
Two	Observation	Recording reflection in contact Summary Sheet for Observation/Document	Abstracting Data: building codes, categories, and themes	Data was merged. Conclusions and Verifications were drawn. CASE REPORT 2 was produced.
	Audio-recorded interaction (during meeting)	Data preparation: Transcribing Audio-recorded interaction	Abstracting Data: building codes, categories, and themes	
	Qualitative Questionnaire (QQ)	Recording reflections in contact Summary Sheet for QQ	Abstracting Data: building codes, categories, and themes	
	Analysis of classroom artifacts	Recording reflections in contact Summary Sheet for Observation	Abstracting Data: building codes, categories, and themes	

Note. *There were ten meetings per cycle

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CHAPTER 4: ANALYSIS AND FINDINGS

THE PROCESS OF TEACHER LEARNING IN THE TIC

Four main categories were identified from the analysis of data derived from multiple sources. The main categories are processes within the TIC, content of teachers' discussions, factors that influenced the processes identified, and teachers' actions. Chapter 4 provides an analysis of the data gathered to explore the processes taking place within the TIC and Chapter 5 presents analyses of the remaining identified categories.

Before the analyses of the processes identified within the TIC are presented, the settings of the three cycles of the TIC project are first described.

4.1 The Settings of the TIC Project

There were three different settings for the three cycles of the TIC project. Below are the detailed descriptions of the setting of each cycle.

4.1.1 Cycle One (C 1)

The first cycle of the TIC took place within the span of ten weeks, and ten meetings were held within these ten weeks. Meetings were held every Friday, and each meeting took about one to two hours, depending on the number of dilemmas shared and the depth and length of discussions on the dilemmas. Eight language teachers took part in the first cycle of the project. In-depth interviews were conducted prior to and after the completion of the first cycle.

Due to work commitments and personal and health matters, teachers' attendance fluctuated throughout the first cycle. Five major instructional dilemmas were shared, which covered various problematic aspects of teachers' instructional practice, for

example, students' inability to respond critically to given questions, students with problematic behaviour or problems in learning, poor spelling in students' written work, and grading of students' academic essays. The discussion on a dilemma sometimes took several meetings, and this was often due to various constraints which affected teachers' opportunities to experiment or collect evidence. Within one meeting, sometimes more than one instructional dilemma was discussed. A teacher could be sharing a new instructional dilemma, and another teacher could be reporting the outcome of an implemented action.

After each meeting, teachers were required to complete a qualitative questionnaire to reflect on the session, record their experiences, and share how knowledge gained from the session could impact their practice. At the end of Cycle One, all participants in the project were interviewed to capture their learning experiences in the first cycle.

Tables 4.1 to 4.5 give details of the sharing of dilemmas within the TIC in the first cycle. In each table, a description of the dilemma, classroom artifacts, or evidence of practice shared and the week(s) in which the dilemmas were discussed are presented.

Table 4.1: SA8's Dilemma in Cycle One

Summary of Dilemma	Students were given a selection of quotations from a text (*To Kill a Mockingbird* by Harper Lee). They also watched a movie entitled *The Shawshank Redemption* (directed by Frank Darabount). Students were required to respond critically to the quotations from these two sources by relating the quotations to given literary themes, for example, *justice/injustice*. Despite various efforts by SA8, students' answers did not reflect a high level of critical thinking. Students were often found lifting, retelling, or rephrasing the story or the events in the text or the movie to support their 'analyses.' SA8 sought help from the community to improve the criticality of her students' answers.									
Classroom Artifacts	1. A handout of the task students were required to complete that contained quotations and questions requiring students to relate the quotations to the general themes introduced (shared in week 2) 2. Students' answers based on the questions given (retyped and graded by SA8) (shared in week 2)									
Duration/ Week	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10

Table 4.2: CA3's Dilemma in Cycle One

Summary of Dilemma	A student, Karim, was disruptive in class. He often disrupted lessons and asked irrelevant questions during lessons. CA3 was looking for ways to 'manage' Karim's disruptive behaviour.									
Classroom Artifacts	Nil									
Duration/ Week	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10

Table 4.3: LE6's sharing of Dilemma in Cycle One

Summary of Dilemma	Lower-proficiency students, particularly students from the Middle East made serious spelling mistakes in their writing. LE6 was looking for suggestions on activities that she could conduct in her classroom to improve her students' spelling.									
Classroom Artifacts	A sample of a Middle-Eastern student's written work (shared in Week 5)									
Duration / Week	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10

Table 4.4: ME2's Dilemma in Cycle One

Summary of Dilemma	Halem, an international student from Sudan, appeared confident in his ability in the English language. However, his written work contained serious structural, vocabulary, and spelling errors which strongly impacted ME2's comprehension of his writing. He also faced difficulties in understanding oral instructions. ME2 found Halem's behaviour confusing, and she was looking for ways to help Halem improve his writing.									
Classroom Artifacts	1) Halem's written work: business letter writing (shared in Week 7) 2) A handout containing the instructions on a writing task (writing a letter to a friend) that Halem was required to complete (shared in week 8) 3) Halem's written work: A letter to a friend (his response to the written task given in week 8)									
Duration/ Week	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10

Table 4.5: HE5's Dilemma in Cycle One

Summary of Dilemma	HE5 was struggling when grading her Degree students' essays. This was the first time that HE5 marked argumentative essays.									
Classroom Artifacts	Nil									
Duration/ Week	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10

4.1.2 Cycle Two (C 2)

The second cycle of the TIC also took place within the span of ten weeks. It commenced after a short semester break. Ten meetings were held and, instead of eight, ten teachers took part in the second cycle. The eight teachers who participated in the first cycle also participated in the second cycle. However, due to external circumstances HE5 and AL1 were unable to attend the first five meetings. Fortunately, two teachers, SU9 and NA10 volunteered to join the community, and this increased the number of participants to ten. SU9 was a university teacher with the Intensive English Program (IEP), and NA10 taught Enrichment English to Victoria University's Business students.

Similarly, in the second cycle, the attendance of the participants to the TIC also fluctuated, throughout. Inability to attend the meetings was often due to personal or work-related matters. AL1, for example, was involved in a car accident and was absent from work for five weeks. She only re-joined the community in the sixth session. Like AL1, HE5 also had problems attending the first five meetings due to personal matters.

During the second cycle, a number of new instructional dilemmas were shared, which were problems relating to the teaching of specific skills (sentence construction and spelling) and managing students within the classroom (handling a dyslexic student in class). Some of the discussions in the second cycle were a continuation of the exploration of an instructional dilemma (problems in improving students' spelling) or a teaching strategy introduced and explored in the first cycle, i.e., the inquiry-based teaching which was suggested to SA8 to solve the dilemma she shared in Cycle One. In the second cycle, SA8 continued to use inquiry-based activities in her 'Theme Study' class and shared her continuous exploration with the method with a new batch of students. Her success stories encouraged CA3 to devise inquiry-based tasks to teach academic writing in two different classrooms. CA3 found that her Psychology students responded to the inquiry-based tasks

better than her Business students. CA3 shared this as an instructional dilemma with the TIC.

Another issue that was discussed in the second cycle was introduced by JO7. JO7 did not introduce an instructional dilemma, but she sought community members' opinions on an activity that she had designed and carried out to improve her Omani students' spelling and sentence construction. The discussion triggered JO7's investigation of her students' backgrounds through recorded interviews to understand the reasons for their great difficulty in spelling some English words and in writing properly punctuated paragraphs.

Similar to Cycle One, participants were required to complete the qualitative questionnaire after participating in each meeting. All of the participants were interviewed at the end of the cycle. The following tables (Tables 4.6 to 4.9) contain information on the instructional dilemmas shared in Cycle Two.

Table 4.6: NA10's Dilemma in Cycle Two

Summary of Dilemma	Students who enrolled in the Enrichment English class were students who were weak in the English language. They had serious problems producing grammatically correct sentences. NA10 sought help from the group to provide her with suggestions to improve her teaching of sentence construction.									
Classroom Artifacts	1. A compilation of students' sentences containing errors (retyped by NA10) (shared in Week 1) 2. A list of planned strategies produced by NA10 for correcting sentence errors (shared in Week 1) 3. PowerPoint presentations produced by students on sentence errors and their corrections (shared in Week 2) 4. NA10's reflections on the activity and the PowerPoint presentations produced by her students (shared in Week 2) 5. NA10's reflections on the activities after receiving feedback in Week 2 (shared in Week 7)									
Duration/ Week	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10

Table 4.7: CA3's Dilemma in Cycle Two

Summary of Dilemma	CA3's student was dyslexic. The student requested some extra time to complete her written tests, but CA3 did not know how much time she could allow the student to have. Another issue raised was on how to evaluate her written work, which was based on a listening task.

Classroom Artifacts	Narratives of classroom events (oral)									
Duration/ Week	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10

Table 4.8: CA3's Dilemma in Cycle Two

Summary of Dilemma	SA8 had devised an extended activity using inquiry-based teaching to help her students form a thesis statement and main ideas based on a literary question given. SA8 achieved promising results. CA3, liked the idea and adopted and adapted the activity for her academic writing classes. She achieved different outcomes from different classes. Her Psychology students responded to the inquiry-based tasks better than her Accounting and Finance students. She did not understand why this happened.									
Classroom Artifacts	Nil									
Duration/ Week	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10

Table 4.9: JO7's Dilemma in Cycle Two

Summary of Dilemma	JO7 designed and carried out an activity to improve her students' spelling and sentence construction (punctuation, structure). She sought opinions from the community members to improve the activity.									
Classroom Artifacts	1. Recordings of interviews between JO7 and her students (Shared in Week 9) 2. Students' samples of written work (Shared in Week 10)									
Duration/ Week	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10

4.1.3 Cycle Three (C 3)

The third cycle of the TIC also took place within a duration of ten weeks. Ten meetings were held and nine university language teachers took part in the project. Similar to the first and the second cycle, participants' attendance in the TIC for the third cycle fluctuated throughout the project due to personal or work-related matters.

During the third cycle, one new instructional problem was shared: SA8's struggles to teach Business letter writing to her Diploma students who were weak in English, within a short time span (7 weeks). Most of the discussions within the third cycle were further exploration of dilemmas or teaching strategies that were reported and explored in Cycle One and Cycle Two. SA8 and CA3, for example, shared their perceptions on the effects

of the inquiry-based teaching they employed on the quality of their students' answers or writing in the final examination. Reading materials on the method were also shared by SA8.

Another exploration reported was on 'copywriting' — a writing activity which was first suggested to JO7 in the second cycle to help her improve her students' spelling, paragraphing, and sentence construction. This teaching strategy was further explored in the third cycle as different teachers experimented with it in their classrooms, resulting in different outcomes. The community carried out discussions to understand reasons for the varied outcomes, ways to better employ the strategy in the classroom, and also the difficulties faced by the teachers during its implementation in the classroom. For a better understanding of the method, CA3 took the effort to share reading materials on 'copywriting.'

Another source of discussion in the community was from NA10, who sought opinions from community members to improve the teaching materials that she had prepared for the teaching of sentence construction and paraphrasing. External sources were brought into the community by SA8 and CA3, which substantiated the discussion and exploration on the teaching of paraphrasing.

Similar to the first and the second cycle, all participants were required to complete the qualitative questionnaire after taking part in each meeting and after ten meetings, they were interviewed.

The following tables (Tables 4.10 to 4.13) summarize the sharing on the instructional dilemma in Cycle Three.

Table 4.10: CA3's Dilemma in Cycle Three

Summary of Dilemma	CA3 observed that her Psychology students responded to the inquiry-based tasks more positively than her Bachelor of Accounting and Finance (BAF) students (observed in Cycle Two). However, the Psychology students did not write good argumentative essays during the examination. In fact, she found that her BAF students did generally better during the final examination. CA3 wanted to explore the reasons why this happened.

	A compilation of external sources on inquiry-based teaching was shared in Week 5 by SA8: 1) summarized information on inquiry-based learning, 2) a document entitled "Inquiry-based teaching," and 3) An article on inquiry-based grammar instruction containing a teacher's attempt to implement inquiry-based methods when teaching grammar.									
Classroom Artifacts	Nil									
Duration/ Week	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10

Table 4.11: SA8's Dilemma in Cycle Three

Summary of Dilemma	SA8 shared a problem she faced in teaching her diploma students' business letter writing within a very short semester (7 weeks). What aggravated her problem was that her students' writing contained various language problems. To solve her dilemma, teachers suggested to SA8 a writing strategy called 'copywriting,' which was first shared in the second cycle. In the third cycle, 'copywriting' was discussed in Week 2 and also in the follow-up discussions to resolve SA8's dilemma. A journal article on 'copywriting' was shared in Week 4 by CA3 (Porte, G. K. 1995. Writing Wrongs: copying as a strategy for underachieving EFL writers by Porte. (G.K. *ELTJ*, 49 (5), 144-151). In Week 6, SU9 shared the different outcomes she achieved when she tried it on two different students. This extended the discussion on the use of 'copywriting' in teaching.									
Classroom Artifacts	Business students' writing samples (Week 2)									
Duration/ Week	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10

Table 4.12: NA10's Dilemma in Cycle Three

Summary of Dilemma	NA10 shared a paraphrasing activity that she had designed for the coming semester. She requested the opinion from community members to improve the activity. External sources on paraphrasing were brought into the community in Week 7 by SA8 (Frodesen, J. (n.d.) Developing Paraphrasing Skills: A Pre-paraphrasing Mini lesson), and CA3 (a complication of web articles on paraphrasing). In Week 9, HE5 shared a paraphrasing activity she had conducted in her classroom.									
Classroom Artifacts	• A handout containing the paraphrasing activity and NA10's reflections on it (Week 6) • A task prompt for a paraphrasing activity shared by HE5 (Week 9)									
Duration/ Week	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10

Table 4.13: NA10's Dilemma in Cycle Three

Summary of Dilemma	NA10 shared an extensive, 13-step plan she developed to scaffold her teaching of sentence combining/construction to her lower-proficiency students. NA10 required help from community members to improve the activity.									
Classroom Artifacts	• A detailed, 13-step plan for the teaching of sentence constructions (Week 6) • Written description of an exercise on sentence combining and her reflection on the activity after it was carried out (Week 8) • Several samples of students' answers (one was as a result of the exercise, and the others were samples of students' work based on an activity that she referred to as 'imitation' (Week 8)									
Duration/ Week	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10

In the following part of this chapter, a detailed description of the processes within the TIC will be provided. Findings from various sources were merged to provide a triangulated account of the processes identified within the TIC.

4.2 Processes within the TIC

Analyses of data revealed that there were different processes and activities occurring at group and individual levels. Through various collective activities, different types of knowledge were generated and processed. At the individual level, teachers were found to be processing knowledge learnt through community sharing in their own unique ways. The next part of this chapter will discuss and explore the different processes and activities occurring at group and individual levels.

4.2.1 Group Processes

Analyses of data revealed that collectively, teachers went through repetitive and cyclical processes of collaborative inquiry, collective reflection, and negotiation of shared knowledge. These activities were found to be supported by the protocol, the TIC members, the evidence of practice, and shared external sources. The following discussion provides descriptions of different collective activities occurring within the different phases of a discussion on instructional dilemmas.

4.2.1.1 Clarifying Shared Instructional Dilemmas

The sharing of an instructional dilemma often began with the description of the dilemma to community members. The disclosure of an instructional dilemma which was an individual effort became a group activity when the problem shared was clarified and refined by community members through the process of inquiry.

Community members posed various questions to the teachers in order to understand their dilemmas. When responding to the questions, often the teachers would share more information about their practice. Sometimes a teacher's disclosures of problems in her practice were supported by evidence of practice or classroom artifacts. If, for example, a sample of student's written work was shared, the teacher would explain the task which resulted in the production of the written work and highlight the aspects of the students' writing she found problematic. Teachers within the community would pose various probing questions to clarify areas of confusion and to better understand the task, the problem, and the student. To understand the dilemma shared, teachers would also collectively analyze the content of evidence of practice shared. When LE6 shared her Middle Eastern student's written work with the community, community members analyzed her student's writing and identified the patterns of grammatical, spelling, and structural errors in the sample. The analysis carried out helped the teachers within the community understand the depth and the extent of the problem faced by LE6. Through these processes, a lot of the knowledge and information pertaining to the classroom practice of the teachers who shared their instructional dilemmas was shared with the TIC.

4.2.1.2 Responding to Shared Dilemmas

When other teachers took part in the discussion of a dilemma, they reflected on their own practice and shared knowledge or information which they considered relevant to the sharing. For example, other teachers reacted to SA8's disclosure on the inability of

her students to respond critically to the literary questions she gave by disclosing their own experience in teaching and learning literature. Teachers would also share the struggles they faced in learning a language when a teacher shared her students' problems in learning English. For example, when LE6 shared her struggles to improve her Middle-Eastern students' spelling, SA8 shared her struggles in learning German as a foreign language. Furthermore, when a teacher shared the strategies she had applied in overcoming her instructional problem, other teachers would share the strategies they had employed when they faced similar problems in their classrooms.

Teachers did not only pose questions to the teacher who shared her dilemma, but they also posed questions to each other when clarifications were required. A teacher, for example, would be asked to clarify a teaching or learning experience that she shared or the suggestion that she gave. During the discussion on Halem, SA8 raised the possibility that the student could be suffering from Asperger's syndrome, based on her own personal experience with a friend with Asperger's. Other teachers requested further explanation from SA8 to understand the behaviour of a person with Asperger's syndrome and how he or she can be diagnosed. Probing questions that teachers posed to each other did not only clarify the instructional problem shared, but they also de-privatized the instructional practice of the teachers within the community.

4.2.1.3 Forming Assumptions

Teachers did not only respond to the disclosures of instructional dilemmas by reflecting on their practice and disclosing knowledge or information that they considered relevant. Collectively, teachers also deduced from the sharing and formed various theories or assumptions to make sense of the dilemmas. During the discussion on Halem, teachers formed various assumptions to make sense of Halem's behaviour. They tried explaining Halem's perplexing behaviour by relating it to possible psychological

conditions, his learning background and culture, his personality, and also his motivation for learning English. During SA8's disclosure of her dilemma in Cycle One, she shared her own theory to explain the reason why her students were unable to think critically when responding to the questions she gave. She explained the situation as student-related, linking their inability to produce good, quality answers to their self-esteem: "They might feel insecure" (Wk. 2, C 1). Other teachers formed various other assumptions to explain why SA8's students were unable to be critical when responding to the questions she gave: they (the students) lacked the general picture; they did not know what is expected of them; they lacked knowledge about the literary text that they were studying; they were not critical thinkers; and they did not understand the texts or the quotations that they were asked to analyze and respond to (Wk. 2, C 1). From such explorations, assumptions that teachers had about teaching, learning, and problematic students were disclosed.

4.2.1.4 Negotiating Emerging Knowledge

Teachers did not only try to understand the dilemmas shared by forming various assumptions about them, they also negotiated the knowledge shared during discussions. They did so by voicing their concerns or challenging the teaching methods/strategies used and suggested, assumptions formed, and opinions and ideas given. Since teachers also disclosed their beliefs and perceptions about students, teaching, and learning, these were also challenged and negotiated. Teachers would openly question a strategy that they considered ineffective or a perception/assumption that they believed was inaccurate. As a result of this negotiation process, differing perspectives, opinions, and ideas surfaced.

During the discussion on Karim, CA3 described Karim's disruptive behaviour and the strategy she had adopted in controlling his behaviour. For example, in the middle of her lesson, Karim would ask CA3, "How is Ms. Anjali?" (CA3's office mate who used to be his teacher in the IEP) and "How old are you?" To put a stop to Karim's disruptive

questioning, CA3 told him to come and see her after class: “You come and see me…” (Wk. 3, C 1). Since the source of his disruptive behaviour was unknown to CA3, community members questioned the appropriateness of CA3’s autocratic approach in handling Karim. SA8 and AL1, for example, collectively emphasized the importance of addressing the matter positively so that Karim would not become rebellious or feel intimidated by the teacher.

Another example of negotiation occurring between group members was during the discussion on Halem. ME2 shared that Halem always appeared composed and calm when communicating with her. Even though Halem’s written work reflected low-level command of the English language, Halem did not appear worried about it. In fact, he appeared to think that he did not have problems in the subject. Some teachers believed that this perplexing behaviour could be attributed to his culture, which they believed was male-dominated: “Sudan... men... male superiority... you need to show you are not inferior to women...” (MI4, Wk. 8, C 1). HE5 agreed with MI4, “Even though you are a teacher you are educated but still you are still...you are still low grade” (Wk. 8, C 1). LE6, however, disagreed with the assumptions formed by HE5 and MI4 and shared a more positive experience she had with a Sudanese student: “I also have a Sudanese student...but he doesn’t appear like that...” (Wk. 8, C 1). SA8 also challenged the assumptions formed by both MI4 and HE5 when she stated, “It is also upbringing…it depends... it is your role modelling...is the family... it’s how the man in your family treat women” (Wk. 8, C 1).

Another specific example of knowledge negotiation occurring within the TIC was during NA10’s disclosures of the problems she faced in teaching sentence constructions to her lower-proficiency students. In her disclosure, NA10 shared the teaching material she used in her classroom. When responding to this disclosure, some community members raised concerns over the level of difficulty of the teaching material that NA10 used in her classroom: “I think probably at this level maybe you shouldn’t give them

business-related articles. Maybe give them something that's easier for them to understand…" (CA3, Wk. 1, C 2). Both SA8 and MI4 agreed that NA10 should "start with the elementary" (Wk. 1, C 2). ME2 supported CA3's suggestion on using materials that were "easier," but understanding NA10's predicament, she negotiated with NA10 and suggested the following:

> If you have to use pre-intermediate as your main text book…by all means use it. I mean…You said you don't want to upset certain people but then you can use the ...You take out some of the exercises from the elementary level. (Week 1, C2)

Negotiation did not only take place between community members and the teacher with the dilemma; it also occurred between community members. During the discussion on Karim, HE5 shared what she had done to handle disruptive students in her own classroom:

> Because this is what I did with my students...I am going to do for this kind of disruptive behavior you know... I pose it to the class... because I am teaching Communication Skills... How does that… affect your impression of this person? So I can always put it back... what do you think of him? For example...so that... it would make him think... you know... next time he is going to be more careful... but I am not being biased or what… I am just putting it back in a nice way...positive manner...so let the class discuss about it...we are actually discussing him. (Wk. 4, C 1)

Some of the community members disagreed with the strategy HE5 used to reprimand a student she perceived as disruptive and questioned the suitability of the strategy used and raised concerns over the negative effect that the strategy might have on the student.

The process of knowledge negotiation was found to be a vital group activity as through this collective process, different opinions and perspectives on instructional dilemmas and teachers' instructional practice emerged.

4.2.1.5 Giving and Refining Suggestions

Another activity that teachers carried out collectively was giving and refining suggestions to the teachers with the dilemmas to help them solve their problems in

practice. Teachers gave suggestions throughout a discussion on a dilemma and at times, as early as after an instructional dilemma was disclosed. When teachers shared what they had done or would have done in their own classrooms when faced with a similar dilemma, they coincidentally gave ideas and suggestions to the teacher who shared the problem.

At times, it was the teacher with the dilemma who came up with her own planned intervention to help her improve her teaching of a specific language skill. For example, JO7 shared an activity on error analysis which she had designed and used to improve her teaching of sentence construction and spelling. NA10 also shared her planned intervention to improve her teaching of sentence construction and paraphrasing.

Teachers not only gave suggestions, but they also refined the suggestions given. They described how they thought a planned action should be implemented, explained the rationale, and predicted possible outcomes. This improved the understanding of the action plan to be implemented as teachers shared the 'best' ways they believed it should be implemented. In the process of refining the suggestions given, teachers shared minute details of classroom practice that reflected their own approaches in teaching. To improve the criticality of SA8's students' written responses to literary questions, teachers provided various suggestions that they thought would help a teacher solve her instructional problems. For example, CA3 suggested group work among the students to assist them in analysing the given text; MI4 suggested that SA8 produced tables of themes and subthemes for chapters in *To Kill a Mockingbird* to help the students see "the whole picture"; AL1 suggested that SA8 "teach them to come up with the questions"; and LE6 suggested that SA8 prepare and guide her students' thought processes to help them in completing given tasks:

> Scaffolding... little, little steps to bring them to that skill to be able to use textual reference... when they talk... when they discuss with their friends. (Wk. 2, C 1)

AL1 refined the suggestion she gave by providing more detailed information:

> Like they have to learn how to create the questions... I think if they know how to create the questions... they know what kind of questions they can ask based on text... so it is not about giving them but teaching them how to create the questions. (Wk. 2, C 1)

This was further refined by MI4 who suggested how it could be done as a group activity: "Getting them to sit in groups and then the good ones... probing all the questions and others who are less capable... would think... Ohhh! This is what I have to think of..." (Wk. 2, C 1). AL1 added this new idea to her description of the strategy suggested:

> Probably if you put them in groups... you give them a quotation and ask them to come up with 10 questions relating to that quotation...and when they come up with the ten questions... eliminate the questions which are not (related). (Wk. 2, C 1)

HE5 provided a rationale for the activity suggested by AL1: "Coming up with the questions will help them think about the text…makes them see further" (Wk. 2, C 1). CA3 supported the same line of reasoning: "I guess you know to come up with the questions can make them think what they can expect from the text" (Wk. 2, C 1). When teachers suggested and refined the strategies to be implemented in SA8's classroom, knowledge on teaching strategies and methods to improve students' critical thinking emerged and was shared among community members.

Based on the suggestions given, teachers with dilemmas often shared what they planned to carry out in their classroom before a session ended. At the end of the discussion on her dilemma, SA8 shared what she planned to do to improve the quality of her students' answers:

> I am going to ask them to choose... one or two (quotation(s)) at least one...at least they can manage...I don't want to pressure them…and then ask them to write the questions...write 5-10 questions and then to write up the analysis of that quotation or text reference. (Wk. 2, C 1)

After a discussion on Karim, CA3 disclosed what she planned to do to control Karim's disruptive behaviour in her classroom: She would tell Karim that she would like to have a 'chat' with him; she would try not to be too friendly or too harsh during the

meeting with Karim; she would ask Karim to jot down any questions he had that was not related to the lesson and only ask them at the end of the class; and talk to him in a nice way, for example, "I need your help…" (Wk. 3, C 1).

4.2.1.6 Further Probing of Instructional Dilemmas

In most cases, a second phase of a discussion on an instructional dilemma would begin when a teacher shared the outcome of an implemented action plan. Community members continued to ask probing questions to explore the dilemma further and to understand the outcome of the implemented action.

In a follow-up disclosure of her dilemma, SA8 described how she scaffolded her students' analysis of several quotations from the text *To Kill a Mockingbird*. In groups, she asked her students to choose one quotation that they understood from the text and form questions that would 'direct' them to the 'meaning' of the quotation. The quotation selected and the questions formed were then presented to the rest of the class. SA8 shared that her students were able to analyze the quotation that they had selected. They were also able to select "questions that did not lead to the analysis" (Wk. 5, C 1). She rationalized that the strategy implemented "worked well…really well" because "they use something (the quotation) that they were familiar with" and "build up from something they know really well and when they analyze the questions…they got the process" (Wk. 5, C 1). Responding to this sharing, community members asked probing questions to understand how the implemented action was carried out, students' reactions to the new activity conducted in class, the end-product that students were required to produce, and how SA8 'rated' the outcome of the implemented action. A lot of new information about SA8's practice (i.e., the detailed teaching process taking place within her classroom and its perceived impact on learning) and the 'effectiveness' of the strategy tested were shared.

In a follow-up disclosure of her dilemma, LE6 reported a detailed outcome of the spelling test she conducted as a strategy to improve her students' spelling. She explained how she selected the words/phrases to be tested and reported the outcome of the test:

> He is from the Middle East... he got like out of 25, he got only 4 correct; I got Malaysians... they got like 22 out of 25 and then 17 over 25…and then one or two Mongolian (students) are also having problems with the spelling. (Wk. 5, C 1)

She also shared one interesting event which occurred when her students were grading each other's spelling: "When they were marking... the friends were marking each other's work...this particular guy marked the incorrect spelling correct" (Wk. 5, C 1). She also shared a follow-up activity that she planned to conduct:

> Writing it five times for every phrase that they got wrong... so I told them it would happen AGAIN but it would not be every week...maybe maybe two weeks or three weeks one time.... so I told them that it is important... because the chapter as we move on to the difficult chapters... the words would be very difficult and probably phrases also... and they are not general English …they are academic words. (Wk. 5, C 1)

In response to this disclosure, teachers asked probing questions to understand the outcome of the spelling test and LE6's dilemma. They inquired about LE6's students' levels of proficiency in the English language, how much reading they did in English and whether IEP taught their students phonetics. Community members also shared personal experiences of learning a foreign language and their experiences of teaching students from the Middle East. Teachers also discussed the constraints of the IEP and the problems that students would face when they graduated from the IEP and joined a pre-university program like MUFY, which had higher language requirements.

When ME2 shared what happened during his 'meeting' with Halem, (as suggested by community members to help her understand Halem's perplexing behaviour) and the letter that Halem wrote for her, teachers asked various questions to understand Halem's ability in understanding ME2's instructions, his responses when he was informed that he would be expelled if he failed the subject three times, his reaction when ME2 informed

him that she wanted to meet him, and when she pointed out mistakes in the letter he wrote. When ME2 responded to the probing questions, she disclosed details of her meeting with Halem, reporting his verbal responses and providing descriptions of his nonverbal behaviour during the meeting. Other teachers responded to ME2's sharing by disclosing how they and other colleagues in their departments dealt with students with similar language and behavioural problems and the struggles faced by these students in the subjects that they taught due to their low English proficiency levels.

Continuous probing on the instructional dilemma triggered by newly shared evidence or data led to further disclosures of teachers' practice. It also led to a better understanding of the effects of the strategies tested on teachers' practice and their students' learning.

4.2.1.7 Reconsidering Assumptions/Forming New Assumptions

When teachers shared the outcome of an implemented action with the community, new knowledge about the instructional dilemma emerged. As a result, assumptions that were previously set were often negotiated, resulting in the formation of new assumptions.

In the first discussion on Halem, teachers tried to explain Halem's perplexing behaviour by relating it to possible psychological conditions, his learning background, culture, personality, and his motivation. In a follow-up session, ME2 shared a second piece of Halem's written work (general letter writing), which contained fewer errors compared to his first writing (business letter writing). The content of the letter was collectively analyzed and the teachers noticed that Halem did better in terms of format, content, and organization when he was writing a general letter than the business letter, (which ME2 shared when she first disclosed her dilemma about Halem to the TIC). New information that surfaced from ME2's disclosures and analysis of Halem's second written work disclosed vital information on Halem's abilities and limitations in writing in

English. Based on this new sharing, teachers formed new assumptions about Halem. Teachers presumed that Halem's writing was not as bad as they initially thought, but it was affected by the kinds of writing activities given to him:

> Because you see it's back to content... you see he may not have the... knowledge or language for Business English but when you ask him to write something like this... he can write because ... maybe in high school he has done it... but when it comes to business setting...there are standard phrases we usually use... probably he doesn't have that. (LE6, Week 8, C 1)

New evidence about JO7's Omani students' learning backgrounds also led teachers to reconsider the initial assumptions they formed about the students' struggles in learning to write in English. Initially, teachers assumed that students' first language was the main cause of their struggles:

> Imagine learning 'Jawi'… where do I put that curve where do I go down where do I go up and dot and then Chinese where to put the stroke and where to put the dash...for us we do not realize that it's difficult (for second language learners). (MI4, Wk. 8, C 2)

JO7 also related her students' difficulties to learn to write in English to their culture: "Culturally they have rubber time… culturally they come from a country…everything is slow…they are not fast paced… they are very laid back…" (Week 8, C 2). After listening to JO7's interviews with her Omani students, containing evidence of their past experiences of learning English in Oman, the teachers reconsidered the initial assumptions and formed new ones, attributing the difficulties the Omani students' faced in learning to write in English to the students' 'shaky' foundation in the English language since back in their native country "grammar is taught in Arabic" (Week 9, C 2) and writing was not emphasized in schools.

4.2.1.8 Giving and Refining Suggestions

In a follow-up discussion on a dilemma, because of new emerging evidence, teachers suggested new ideas or action plans to help a teacher solve her instructional

dilemma. In a follow-up session, LE6 disclosed a lot of new information about her dilemma: the outcome of an implemented action, her students' backgrounds, and the nature of her course and her language program. This sharing made the teachers realize that the problem that LE6 faced was more complex than what they initially thought. Her students had some serious problems with spelling. LE6, however, faced many constraints (limited time, rigid scheme of work) that impacted what she could do to improve her students' spelling. As a result, improving her students' spelling was something that she could only do 'on the side.' Based on this new understanding, teachers gave more realistic suggestions to help LE6 with her dilemma. SA8 suggested that LE6 work "within these constraints…every two or three weeks…first step…creating awareness (because) if it hasn't been pointed out to them they would probably (think)...it is not so important…probably they would brush them aside…" (Wk. 5, C 1). CA3, on the other hand, suggested an "extra hour in phonetics and spelling" and to encourage students to read so that they become familiar with English words (Wk. 5, C 1).

With new evidence derived from her interviews with the Omani students, teachers gave JO7 new suggestions to help her 1) improve her teaching of writing and her students' awareness on the kinds of language problems they had, 2) gather more data to understand the problems faced by international students in learning English, and 3) monitor students' language development when they progressed from one level to another.

Teachers' discussions on an instructional dilemma would continue until the teacher with the dilemma was satisfied with the outcome, or the dilemma was perceived as 'solved.' Some discussion on an instructional dilemma, however, ended without the dilemma being 'solved.' This occurred most of the time due to the seriousness or extent of the problem (for example, LE6's Middle Eastern students' spelling problem) or work or course-related constraints and lack of evidence, which disrupted teachers' sharing. In

one instance, a teacher shared a problem in her practice but did not continue to disclose her findings to the community because of confidentiality issues.

4.2.1.9 Extending Discussions on Dilemmas

Sometimes a teacher would continue using a new teaching strategy suggested by community members in her classrooms even when she perceived her dilemma as 'solved.' When she shared her exploration of the new teaching strategy, the discussion would go into the third phase, where focus was more on understanding the teacher's use of the strategy in her classroom. When responding to the teacher's disclosures, community members shared some suggestions to help her improve the use of the strategy and often gave words of encouragement and praises for her effort. This was observed during the continuous discussions on SA8's exploration with inquiry-based teaching, which she experimented with repetitively within two cycles in two different classes.

When reports on the use of a specific teaching strategy were consistently positive, other teachers became motivated to apply it in their own classrooms and share the outcome with the community. As teachers' explorations with the strategy took place within different classroom settings and contexts, different results were achieved. This extended the discussion on the use of a specific teaching strategy in different classrooms as teachers probed to find out the reasons for the different outcomes. An extended discussion on inquiry-based teaching occurred when CA3 shared her exploration of inquiry-based teaching in two of her academic writing classrooms. Through such sharing, teachers gained valuable input on the use and the effects of a teaching strategy in various teaching contexts.

A discussion would also go into the third phase when teachers brought external sources such as journal and web articles into the community to explore the teaching strategies experimented with by community members. In the third cycle, SA8 shared

some external sources on inquiry-based teaching which extended teachers' discussion on it. The shared articles provided the teachers with information on the different types of inquiry-based methods (i.e., structured, guided, open-inquiry) supported teachers' discussion on why the method was successful in some classrooms and not others and also how it could be used to teach English grammar.

Other external sources brought into the community were on 'copywriting' and paraphrasing. One was a journal article from *English Language Teaching Journal* (ELTJ) which explored the use of 'copywriting' for the teaching of English. During the session, teachers explored past research done on 'copywriting,' and the rationale for conducting the activity within one's classroom. The discussion on the journal article content triggered further discussion on 'copywriting' as teachers continued to discuss ways to implement the activity in their own classrooms. Another set of external sources brought into the community was an article containing a description of a mini pre-paraphrasing activity and a compilation of web articles on 'paraphrasing.' The content of these sources triggered a discussion on the differences between paraphrasing, retelling, recapitulating, and summarizing. It also triggered a collective inquiry on how paraphrasing activities were graded, which led to more disclosures on how these were graded in different programs. Community members also explored instances where paraphrasing activities were graded but the skill was not taught to the students because there was no time to teach it. The shared article also substantiated discussion on how to improve the paraphrasing activity designed by NA10. Community members advised NA10 to include activities like 'substitution cues' and suggested that she teache paraphrasing indirectly. Both of these were ideas promoted by the shared articles.

The discussion triggered by the external shared materials supported past discussions on a dilemma or a teaching strategy, gave teachers new practical ideas they could apply to their practice, and triggered an extensive discussion on teachers' practice.

Information from external sources appealed to everyone within the TIC, particularly to the more experienced teachers, like MI4.

Knowledge emerging from collective activities was found to be processed by individual teachers in their own unique way. Through the process of individual reflection, teachers were found to be selective of the knowledge that they wanted to process further. It was also found that not all of the knowledge that teachers selected was processed. In such cases, teachers would store selected knowledge, most probably for future use. Some useful knowledge that was not stored would be processed further through continuous reflection and/or experimentation on practice.

4.2.2 Individual Processes

When listening or taking part in a discussion on a dilemma, teachers were exposed to a variety of knowledge, such as strategies and techniques used in teaching, problems in practice, requirements of language courses taught in other programs, possible causes of students' problematic behaviour and/or problems in learning English, multiple external factors that impacted classroom teaching and learning, students' backgrounds, and teachers' beliefs, just to name a few. Knowledge that was generated through group processes was found to be processed individually by the teachers.

4.2.2.1 Selecting Knowledge

Analysis of data showed that teachers reflected on community sharing during and after attending a session. Teachers made attempts to connect knowledge that surfaced during discussions to their: own instructional practice, beliefs about teaching and learning, students, language programs, and constraints. As a result of this reflective process, they became selective about the knowledge that they would process further. HE5

described the complexity of the selection process she experienced, which was achieved through reflection:

> Actually it makes you reflect to think about your own practice… Can this be applied if I were to encounter the same problem? Can this be applied to my course because it may vary according to… the students' attitude or the level or the motivation or the capacity? If the class is too large sometimes you cannot carry out certain activities… it's not practical. (Interview, C 2)

Teachers were found to be selecting knowledge that had a direct application or implication to their present teaching context. ME2, for example, continuously selected information or the sharing on issues relating to Middle Eastern students because of her continuous struggle with some of the Middle Eastern students in her classrooms:

> Not everything discussed in the IC (Inquiry Community) I can relate to my situation but I can relate especially to the Middle Eastern students… Yes I do have foreign students in my class and I do face the same kind of problem, same kind of mistakes that they made, spelling, punctuation, paragraphing, that kind of things. (Interview, C 2)

JO7 rejected sharing on ways to improve students' critical thinking: "Critical thinking not so much but for lower proficiency students … because even at level four they are still very weak students" (Interview, C 1). She favoured the practical strategies that were shared to help her level one students improve their spelling and sentence construction because it was an issue that she was continuously struggling with in her classrooms.

Teachers also selected information or specific knowledge which they believed was appropriate to their teaching contexts and generally conformed to their beliefs, particularly on aspects of practicality and feasibility. When selecting what was to be processed, ME2 reported choosing "the one that I think would be most suitable for that particular problem and whether that can be applied to that particular group for that particular class for that particular student" (Interview, C 1). At the end of the third cycle, ME2 recalled responding to a sharing when it had a practical relevance to her:

> I mean I learnt a lot from others, don't get me wrong, it's just that something that I have used and something that I realized that applied directly to me. So 'copywriting' and about the students from the Middle East… so those two…really make an impact on me. (Interview, C 3)

When choosing suggestions to solve her problems with Karim, CA3 reported selecting ideas that were "practical and if it's suitable for me" (Interview, C 1). Similarly, LE6 reported that she would choose information or sharing that was "feasible to be carried out in class" (Interview, C 1).

It was found that some teachers rejected opinions which contradicted their beliefs or current approaches to teaching. This was obvious in the case of MI4, who rejected the sharing on 'copywriting' because she believed that it would not work and also in the case of NA10, who rejected others' advice that she should use 'easier' materials in her classroom because of her perceived belief in the 'standard' that she needed to maintain. However, it was also observed that sometimes teachers were drawn to others' opinions, even when they contradicted their beliefs about and current approach to teaching. SA8, for example, was drawn to the suggestions given by others to an employ inquiry-based approach in her classroom, which was more student-centred, even though it contradicted with her common approach to teaching, which was more autocratic and teacher-centred.

Teachers also selected novel ideas or new teaching methods introduced during community meetings to be reflected on. In the third cycle, JO7 shared a writing activity called 'copywriting.' The main objective of 'copywriting' was to improve students' spelling, paragraphing, and punctuation. When asked to 'copywrite,' students would be given a piece of writing, and they would be required to copy it verbatim. All of the teachers who took part in the discussion reflected on the sharing on 'copywriting.' AL1 recalled the sharing on 'copywriting' as "the most interesting experience" during the session. She related that this was because "it is something new that I have never heard or done before" (QQ, Wk. 2, C 3). ME2 also paid attention to the sharing on 'copywriting'

and reflected on it: “I think when students are forced to copy write the same phrases so many times, somehow, a few of these phrases (or part of the phrases) will be common to them. This will enable them to use it correctly” (QQ, Wk. 2, C 3).

Knowledge that was selected would either be stored or processed further through continuous reflection and/or experimentation on practice.

4.2.2.2 Storing Knowledge Selected

Not all of the knowledge selected was processed further, and this occurred due to various factors which hindered the process relating to relevance and suitability of selected knowledge to present teaching context and also work-related constraints, such as inadequate time to experiment with a suggested strategy. When this occurred, the selected knowledge was presumably kept in storage, possibly to be applied in future practice.

Even though many teachers in the community recognized the value of ‘copywriting,’ not all of them used ‘copywriting’ in their classrooms immediately after learning about it. CA3 shared that she would try to introduce the method in her “teaching for weak students and modify them for proficient language learners” (QQ, Wk. 4, C 3). Similarly, SA8 disclosed that she “will try variations of copying with my students though I have never done it before and was initially sceptical about the technique” (QQ, Wk. 4, C 3). SU9 too shared her intention of using the method in her classroom in her future classes: “I took note of the system of ‘copywriting’ done by the author and cannot wait to use that system of flashing a text on the board and giving them a sentence every 15 seconds” (Wk. 4, C 3). It was found that teachers were looking for the right opportunity to apply it, such as when they had weak students or when there was a need for them to address their students’ writing problems. This shows that teachers kept what they learned on ‘copywriting’ in storage until a suitable time to apply the technique in their classroom.

When SU9 introduced a method to teach essay writing where students were given cut-outs of an essay to glue back together to teach them the structure of an essay, AL1 found the sharing interesting:

> SU9 shared about the essay writing activity in her class where students are given cut-outs of an essay and asked to identify the parts and put them together. I am looking at how I can implement this for my students who are weak in writing. (QQ, Wk. 3, C 3)

Despite this, she was unable to test it in her writing classrooms because she was teaching a writing course in the short semester where classes only run for seven weeks: "It's seven weeks so it's very tough for me to have a monitoring session, to have feedback and all that, so it was very challenging and difficult for me" (Interview, C 3). AL1 planned to use the method in the following semester when she would be teaching a full semester, saying, "I am going to have three classes, so I think it's possible for me to (carry it out)" (Interview, C 3). This is more evidence of knowledge storing by a community member for future application in her practice. The practice of storing knowledge for future use by community members was best explained by HE5:

> You can either accept or reject or another way would be you just store it away, you don't use it, but maybe later on, it may be necessary for you to use it… you have different kind of students coming in every semester. (Interview, C 1)

Teachers were found to be particularly attracted to novel ideas or strategies in teaching; however, not all interesting, novel ideas or strategies were selected to be processed further or stored for future use. When JO7 introduced 'Tonto' a turtle soft toy that she used in her classroom to teach English, most of the community members who attended the sessions recalled 'Tonto' as "the most interesting" portion of the sharing. Despite this, it was not selected to be processed further, nor was there any indication from any of the teachers that they might store the knowledge learnt for future use. This was because the teachers perceived the use of soft toys in JO7's classroom as interesting and appropriate as JO7 was teaching language learners at the beginner level. Many, however,

believed that it was not useful for more proficient learners and that the use of puppetry in the classroom required certain skills, skills that they lacked but they believed JO7 had due to her background in Performing Arts.

4.2.2.3 Further Processing of Selected Knowledge

Perceived useful, selected knowledge that was not stored was processed further through continuous reflection and/or experimentation on practice. Continuity of teachers' reflections on a specific sharing, issue, or an instructional dilemma was found to be influenced by their present teaching context and also the sharing within the community. A teacher, for example, was found to select and continuously reflect on a specific issue or dilemma if it was pertinent in their own practice. ME2, for example, continuously selected and reflected on sharing on problematic students, particularly when it involved Middle Eastern students, since she was struggling with some of the Middle Eastern students in her classroom. The IEP teachers, like SU9, LE6, and JO7 continuously selected and reflected on sharing that was related to the teaching of lower-proficiency learners because this was a common concern in their classrooms. Teachers were also found to be reflecting continuously on the sharing on teaching strategies that they were experimenting with in their classrooms, as in the case of SA8 and CA3. These show that the continuity of teachers' reflections on a specific issue, dilemma, or strategy in teaching was influenced by what was taking place in their current classrooms. Trends in teachers' continuous selections and reflections on an issue, dilemma, or their approach in teaching could be traced in the qualitative questionnaires that they filled up after attending TIC meetings.

It was also found that teachers reflected continuously on a specific issue, a dilemma, or a teaching strategy when it was continuously raised and discussed during community meetings. ME2, for example, was able to reflect continuously on issues

pertaining to students with problematic behaviour or learning difficulties because similar issues were repeatedly raised by community members: CA3 shared a problem she faced with a disruptive student, Karim; ME2, herself, shared a perplexing case of Halem; and NA10, LE6, SA8, and JO7 disclosed the problems their students faced in their learning of the English language. In another example, CA3, who was drawn towards the sharing on inquiry-based teaching was able to repeatedly reflect on the strategy because the teaching technique was frequently discussed during community meetings.

When an issue or a teaching problem was repeatedly discussed, a continuous flow of new information emerged from community sharing. This supported teachers' individual reflections, making the process continuous. This resulted in some teachers gaining new insights into a dilemma or gaining new perspectives about their practice and the process of teaching and learning, which helped some teachers change certain aspects of their teaching. This is evident in the case of ME2, who changed the way she dealt with a problematic student in her classroom after reflecting on the continuous discussions on problematic students or students with problems in learning. The continuous reflections on these sharing sessions triggered her to reconsider the common approach she adopted when dealing with such students in her classrooms. This shows that the sharing within the community influenced and supported individual teachers' continuous reflections on a dilemma or their practice, which for some teachers, led to some modifications in their practice. (This will be explained further under 'Actions of Teachers.')

Participation in TIC meetings, at times resulted in teachers trying out new approaches or strategies, either in handling problematic students, or in their teaching of a specific language component or skill. A teacher's experiment with a different approach or strategy in teaching was prompted by the ideas or opinions given by community members. SA8, for example, experimented with inquiry-based tasks in her 'Theme Study' classroom after community members suggested the strategic use of questions to trigger

students' thinking in order to improve the quality of her students' answers. Other teachers also became motivated to try out new strategies in their classrooms when others within the community shared their successful attempts with a specific strategy in teaching. This was evident in the case of CA3, who became motivated to experiment with inquiry-based teaching in her academic writing classrooms after listening to SA8's accounts of the positive effects of inquiry-based tasks on her students' learning and the quality of their written work.

It was found that some teachers in the TIC went through a process of experiential learning, which involved reflecting on selected knowledge, experimenting on practice, and reflecting on outcome, as described by ME2:

> So I think that's after sharing, after experimenting, implementing and then reflection because whatever it is that suggested by anybody in the group, you can use it only after reflecting on it, after you apply then you know whether okay how can I make this better for this particular class? Can this work for this one? That…can only happen upon reflection. (Interview, C 3)

Teachers' experiments with selected knowledge varied in terms of size and frequency. Some teachers experimented with a teaching strategy only once, as, for example, with LE6 and her one time experiment with the 'spelling test' she conducted in her classroom and SU9's small experiment with 'copywriting,' involving only two of her students. However, some teachers experimented repeatedly with new knowledge, as in the case of CA3 and SA8, who continuously experimented with inquiry-based teaching in their classrooms. SA8 and CA3's continuous experiments with new teaching strategies were supported by the teacher community as community members shared new ideas and suggestions on how to resolve teachers' dilemmas in light of new evidence shared and how to improve their use of new teaching strategies introduced in their classrooms. This back and forth process was described by SA8:

> So what I was able to do is some of the techniques that I have used and I have gotten feedback on how to improve and I have taken it back to the class and it has managed to you know like modify things and used them and ... so basically I think

> it's a sounding board and I have gotten that from people at the IC (Inquiry Community). (Interview, C 3)

Community members also supported teachers' continuous efforts to experiment with new knowledge by giving them emotional support in the form of praises and words of encouragement.

Teachers' reflections on practice and experiments with new ideas or strategies in teaching was also prompted by the protocol employed. The mechanism within the TIC, activated by the protocol employed, required teachers to reflect on their practice and 'test out' ideas, or strategies in teaching, acquired through community sharing, in order to collect data to understand or to solve the dilemma shared. This, consequently, 'forced' teachers to try out new ideas or strategies, which were acquired through community sharing, in their classrooms.

4.3 Analytic Summary

Analyses of data from various sources show that a lot of activities took place within the TIC during the discussions on instructional dilemmas. The activities within the TIC occurred at two different levels, group and individual, as shown in Figure 4.1, below. Teachers' collective actions at the group level focused on understanding and solving the instructional dilemmas shared. At this level, teachers collaboratively generated and processed shared knowledge when they clarified, probed, negotiated, refined, and made sense of information, opinions, and ideas that surfaced. Through this process, different types of information or knowledge concerning teachers' practice, beliefs, and approaches were shared, and different perspectives, views, and opinions pertaining to students, teaching, and learning emerged.

Knowledge emerging from group processes was found to be processed at the individual level. At this level, through individual reflection, teachers became selective of

the knowledge that they would process further. Knowledge selection was found to depend on what teachers perceived as relevant, practical, and suitable for their students and present context and was influenced by teachers' beliefs and current approaches to teaching. Knowledge or information selected was either stored for future use (depending on immediate teaching needs and context) or processed further through continuous reflection and experimentation in practice. Continuity of teachers' reflections was found to be influenced by what was currently taking place in their classrooms (i.e., pertinent problems in teaching that needed to be solved) and also by the sharing within the community as teachers were able to repeatedly reflect on an issue, a teaching problem, or a teaching strategy if it was continuously raised by community members and discussed within the community.

Group-level activities were found to be supported by the protocol utilised, the community members, the evidence of practice, and the external sources shared by teachers. The protocol used promoted cycles of collaborative inquiry and reflection, which generated an abundance of knowledge about various aspects of teaching and learning. Community members supported group processes by supporting the protocol and addressing conflicts through negotiations of emerging knowledge (ideas, opinions, perspectives, assumptions) during discussions on dilemmas. The evidence of practice shared substantiated and extended teachers' discussions on instructional dilemmas. External sources (journal and web articles) shared, on the other hand, introduced formal and researched knowledge into the discussions, which extended teachers' discussions on and exploration of various teaching strategies and enhanced teachers' understanding of and triangulated their discussions on these strategies. They also extended teachers' discussion and exploration on their practice.

Individual processes were found to be supported by the community members, the qualitative questionnaires and the protocol used. The sharing within the community

triggered reflection on practice which at times resulted in teachers trying new ideas in their classrooms to solve their dilemmas. It also provided pedagogical and emotional support to teachers. The qualitative questionnaire helped teachers to reflect on the sharing and their practice. The protocol, on the other hand, encouraged teachers to collect data and try out suggested strategies to understand or solve their dilemmas. This, in a way, motivated teachers to experiment with newly learnt knowledge from community sharing.

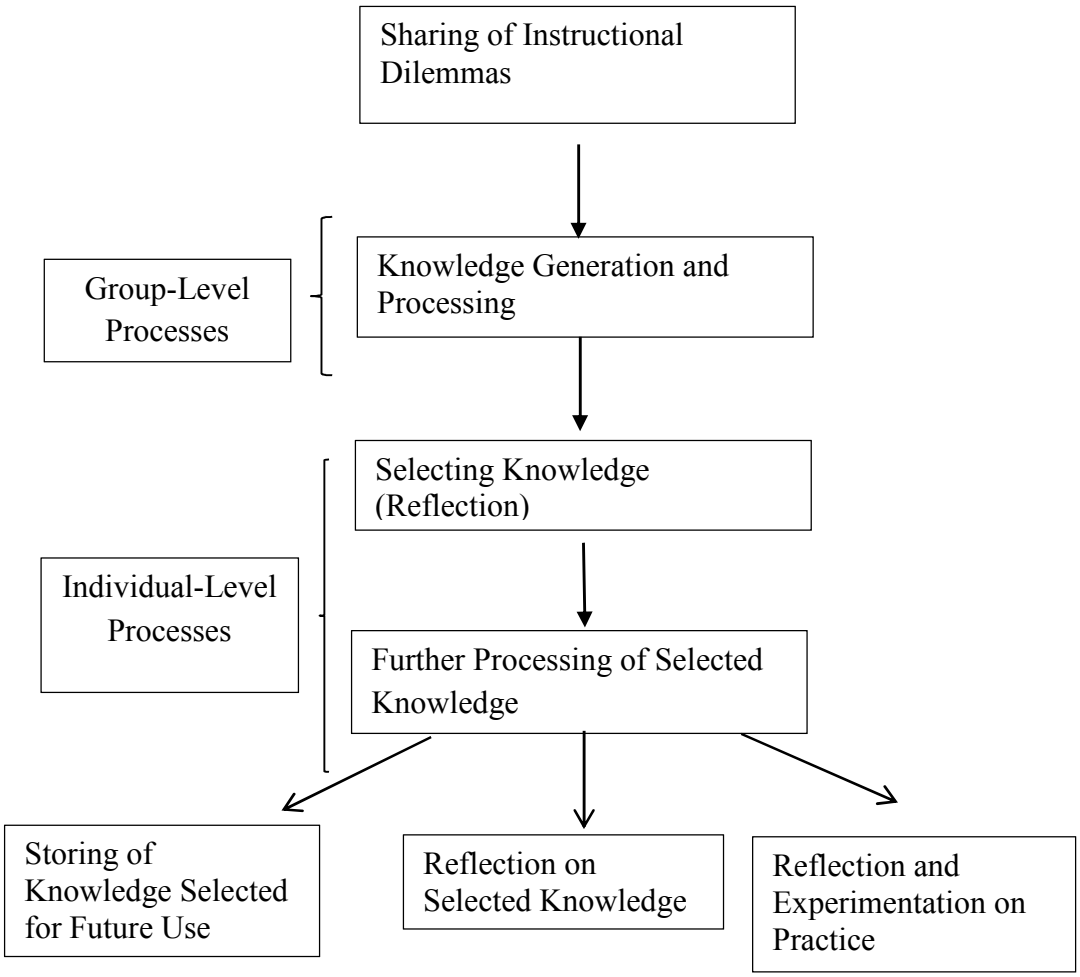

Figure 4.1: Group and Individual-Level Processes within the TIC

The following chapter covers analysis of data on three other main categories identified. They are content of teachers' discussions, factors that impacted the processes identified within the TIC, and teachers' collective and individual actions.

CHAPTER 5: ANALYSIS AND FINDINGS

CONTENT OF DISCUSSIONS, FACTORS IMPACTING PROCESSES, TEACHERS' ACTIONS

5.1 Introduction

This chapter provides an analysis of data of three other main categories identified: content of teachers' discussions, factors affecting identified processes within the TIC, and teachers' actions.

5.2 Content of Discussions

Various categories of content were identified when the interactions taking place within the TIC were analyzed. University teachers disclosed a lot of their practice and personal experiences during discussions. They also shared their beliefs, perceptions, and assumptions about students, teaching, and learning; information about their respective programs; and descriptions of future practices. Probing questions, statements reflecting agreements and disagreements and also comments reflecting support were also identified in the discussions on instructional dilemmas. Analysis of teacher interactions also revealed that at times, community members shared irrelevant, off-tangent information (View Figure 5.1 for content of discussions during TIC meetings).

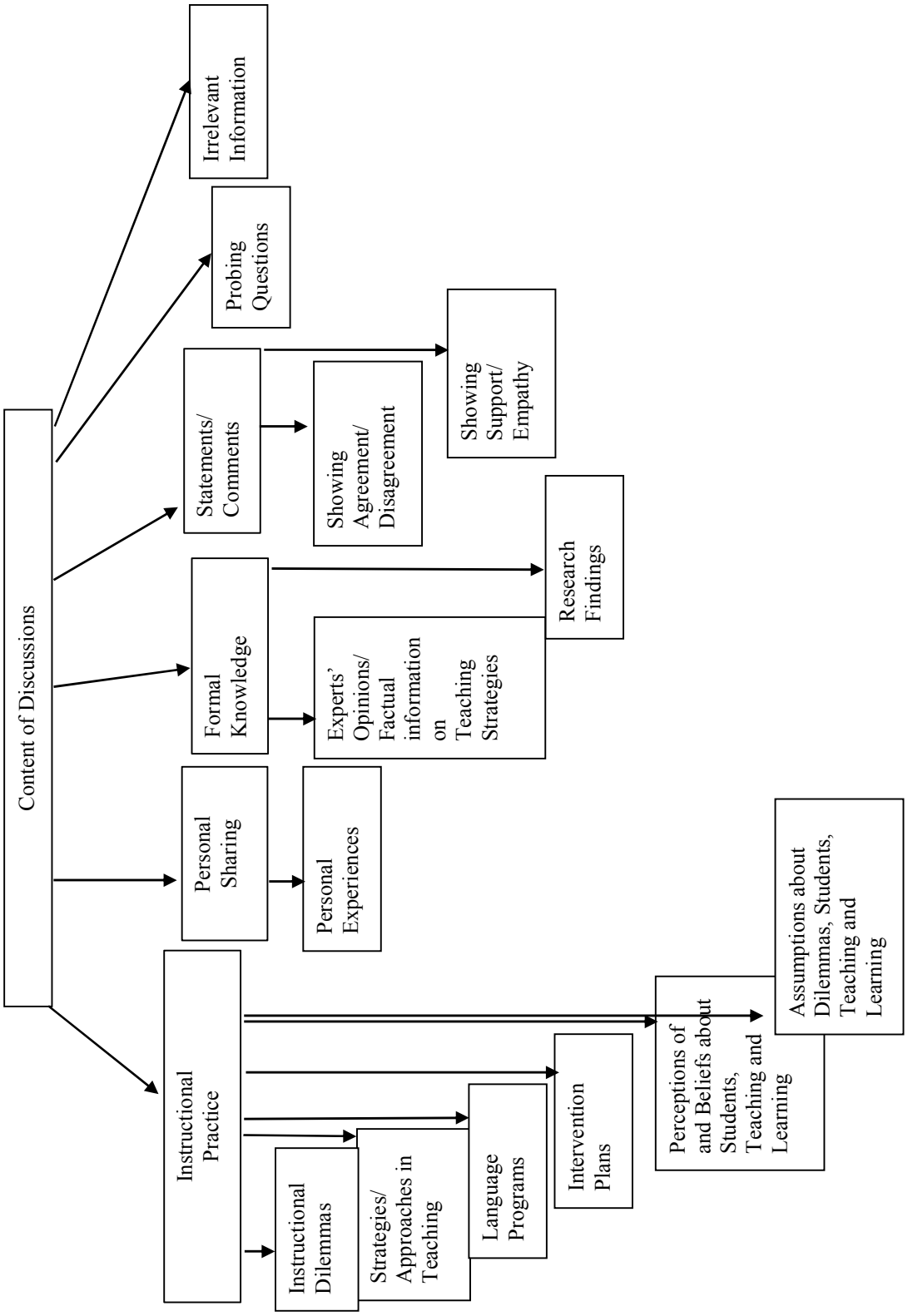

Figure 5.1: Content of Teachers' Discussions

5.2.1 Instructional Practices

The main category of content identified through the analyses of data derived from teacher interactions was university teachers' instructional practices. When teachers took part in discussions on instructional dilemmas, a lot of information pertaining to their practice emerged from the sharing. Information about teachers' instructional practice leaked into the discussions when they: 1) disclosed their instructional dilemmas, 2) shared evidence of practice, 3) responded to each other's sharing, 4) shared the outcome of their action plans, and 5) shared intervention plans they had designed to improve their teaching and their students' learning.

As the protocol employed was problem-oriented, teachers' problems in teaching was one main aspect of their practice that was disclosed during community meetings. When teachers disclosed their instructional dilemmas, they revealed a lot of their practice.

When SA8 described her dilemma in the first cycle, she provided a rough description of the course that she was teaching; explained the various activities she had conducted ("We have discussed chapter by chapter analysis. They presented... and they did the oral presentation for me... and then I had them write an essay as practice…" (Wk. 2, C 1)); and the shortcomings of her efforts: Her students failed to project critical thinking in their answers and were merely lifting from the text, "…or end up telling me a big long story…summary, summary, summary" (Wk. 2, C 1). Similarly, when describing the problem she faced in teaching sentence construction, NA10 also shared a lot of her practice with community members. She described the classroom activities that she had conducted to improve her students' sentence construction, the perceived outcome of her efforts, examples of students' oral responses, samples of her students' written responses to the activities, and her written reflections containing her own evaluations of the activities. When other teachers' asked probing questions to understand the instructional dilemmas shared, more information of teachers' practice surfaced.

Sometimes, teachers accompanied their descriptions of their dilemmas with evidence of practice. When this occurred, more knowledge of their practice was shared. SA8, for example, provided a sample of the task her students were required to complete and samples of her students' written work which she had marked when she disclosed her dilemma. This gave other teachers a glimpse into her practice, such as actual examples of activities she conducted in her classroom and the writing that students' produced which failed to meet her expectations. When NA10 shared the samples of her students' written work, she was also sharing some aspects of her practice. The evidence of practice shared was thirteen samples of sentences produced by her students, which were of various lengths and contained various errors in structures (sentence fragments), vocabulary (wrong word choices), grammar (wrong subject-verb agreement and use of tenses), and punctuation. The sample of students' work reflected the kind of activities that NA10 conducted in her classroom and gave a clearer impression of the challenges that she faced in teaching and the depth of her dilemma. When other teachers asked probing questions to understand the classroom artifacts shared, the practice of the teachers who shared the dilemmas was further exposed.

Teachers also disclosed their practice when they responded to each other's sharing. Teachers shared approaches and strategies they employed, teaching materials they used, and the activities they had conducted to support discussion on dilemmas. When SA8 took part in the discussion on Karim, she shared how she dealt with problematic students in her own classroom:

> But I use that sometimes... especially when I have some problematic students... I will call them for a chat...and I tell them maybe you can help me... you can even tell them... maybe you can even help me in answering the question...that's what I do... (Wk. 3, C 1)

During the sharing of LE6's dilemma, the discussion diverted to the problems faced by the IEP teachers in teaching students of lower proficiency. This led to JO7's

disclosure on how she taught her students using a turtle puppet called Tonto. In her disclosure, she shared the role that Tonto played in her classroom:

> I have to bring my helper (*JO7 took a puppet which appeared to be a turtle out from a bag. Everyone gasped*). This is my co-teacher… and everyday Tonto has to come... (*JO7 moved Tonto*). They (The students) talked to Tonto. (Wk. 4, C 1)

When other members probed her use of Tonto, she disclosed her practice further when she told them how she used Tonto to teach the English prepositions and how she encouraged her students' participation through Tonto:

> First preposition very good... 'on'... (*Tonto was on JO7's shoulder*)... 'under' (*Tonto was under the table*)…and then...High-five... high-five... (*Tonto 'high- fived' SA8*)...Then they participate. (Wk. 4, C 1)

In another example during one of the discussions, NA10 shared how she nearly lost control in her classroom when a student kept asking her for a definition of a word. Other community members shared their practice when they reacted to this disclosure. SA8, for example, shared that her own students were required to find the meaning of unknown words on their own: "Normally what I do with my students is like you know when they take out their dictionaries, they all have their phones…look it up and see what the meaning is …" (Wk. 7, C 2). The discussion then diverted to the problems of managing students' behaviour, particularly when students had been previously taught by a teacher who was not strict. When this was raised, LE6 disclosed the strategy she applied in managing her students' behaviour:

> I usually get students who are… because I teach level 4 so the students will come like from level 3 so if let say the teacher in level 3 is not strict so when they come to level 4 they are in shock because they will tell you...This teacher is very strict and then I will have problems controlling the class even right now I have like... I think five ... six of them, they come in like 10 minutes 15 minutes 20 minutes after class, they are just not… it's not a problem to them...they feel it's not a problem coming late so much so I tried locking the door… (Wk. 7, C 2)

When SA8 shared how letting her students "lead discussions" and "ask questions" (Wk. 5, C 2), this resulted in what she perceived as a better quality learning experience

for her students. HE5 reacted to this sharing by disclosing the outcome of a similar strategy she applied in her own practice:

> So some people will come up with some ...funny brand and then they say why they think this brand is good and why they think it is not good… so some of them will say CK (Calvin Klein) is very good compared to Scarlet (a local brand)…Scarlet from Jusco… Then some will say why is Scarlet better than CK… so a lot of discussion a lot of questions from the floor so I was very quiet I just sit there... if you think that a brand is okay accept if not…they have to give the reasons...Why is it so? So it was like very…very interesting because I was not giving my comments…I let them give their own comments. (Wk. 5, C 2)

Information pertaining to teachers' practice also surfaced when teachers reported the outcome of their action plans. When LE6 shared the outcome of a planned intervention she carried out to improve her students' spelling of English words, she disclosed the outcome of the test, her students' verbal and nonverbal reactions when they found out their scores, the 'punishment' she gave to her students for wrong spellings, the constraints she faced to conduct future spelling tests, and her evaluation of the test conducted. When CA3 explained the outcome of her 'chat' with Karim to the community, she disclosed the changes she observed in Karim's behavior: There was a significant reduction in the number of irrelevant questions asked during her lecture; Karim would go "nearer" to the teacher to ask questions and he was "a bit quiet and he waited." CA3 reported that Karim appeared to be "holding back," which gave her the impression that "he was trying to control himself" (Wk. 4, C 1). Similarly, in a follow-up session, SA8 shared a lot of her practice when she disclosed how the use of questions improved her students' ability to think critically. SA8 not only shared the perceived impact of the inquiry-based teaching, but she also shared her students' written work and their verbal and nonverbal responses to the new approach she used. As SA8 continuously experimented with inquiry-based teaching, she continued sharing information about her practice with the TIC.

Sometimes, teachers shared intervention plans that they planned to use or had used in their classroom to solve problems in teaching and sought help from the community to

improve them further. When this happened, teachers' practice was further disclosed. JO7, for example, shared an error analysis activity she had designed and used to improve her students' spelling and sentence construction. In two separate cases, NA10 shared two planned interventions that she had designed to improve her teaching of paraphrasing and sentence construction. Both the intervention plans shared by NA10 had never been tested in her classrooms. She planned to use them in her future classes.

Many of the teachers appreciated what they learned about each other's practice:

> But sometimes you just don't get solution from books because you also need to have… to talk to teachers who are… who are also teaching and you know whether they are having the same kind of problems and in fact teachers will be the best to give suggestions… I mean you still can get solution from the books and things like that, you read up and all that but you don't have anyone to share it with, you know when you implement it and then what happens you know. So I think…it is still best to learn from other teachers. (LE6, Interview, C 3)

Knowledge emerging from teachers' practice showed new teachers like HE5, as she said, "some new ways to teach…reminded me how to improve methods that I have used before" (HE5, Interview, C 2). ME2 recalled "all the lecturers reveal(ing) their techniques, what they do in class" and she reported learning "teaching methods…that I have not heard of" (Interview, C 3). JO7, who was a new language teacher with barely two years of experience in teaching English, described her experience within the community as an "enriching experience" as she discovered "what the other teachers were doing" and she "learnt new ideas and strategies from them" (Interview, C 3).

5.2.2 Language Programs

Another category of content identified from the analyses of teacher interactions was information about language programs at PIU. Prior to teachers' involvement in the TIC, teachers were oblivious to the objectives, structure, or content of language courses taught in language programs other than theirs. During discussions on instructional dilemmas, they got a glimpse of what was taking place in other language programs:

> I don't know some of the other lecturers not in this way and I don't know their courses, what they actually do in their courses, what they actually teach, what's included in the syllabus and …what type of students…they have and how do they conduct their classes. I get to know…a lot more about different types of English language being taught inside PIU. (ME2, Interview, C 3)

The discussions in the TIC revealed a lot of information pertaining to different language programs in PIU. In one of the sharing sessions, for example, SA8 revealed the challenging nature of the MUFY program, particularly for students who were not proficient in the English Language:

> When the student goes to MUFY there is no language support you know... when you come....the prerequisite is.... you must be able to do this... this... you must have an IELTS score of at least six...you know... you must have that kind of entry requirement... (Week 5, C 1)

This information particularly benefitted the IEP teachers, whose students may join the MUFY program upon their graduation from the IEP: "Certainly the Monash level of learning is much higher, and we are aware of that, but I didn't know to what extent the level (is)" (JO7, Interview, C 2).

During discussions on instructional dilemmas, teachers did not only disclose their instructional practice, they also shared their perceptions of and beliefs about students, teaching, and learning.

5.2.3 Perceptions of and Beliefs about Students, Teaching, and Learning

During discussions on instructional dilemmas, another category of content that often surfaced was teachers' perception of and beliefs about students, teaching, and learning. Analyses of teachers' interactions often found traces of teachers' perceptions of their students. When students failed to achieve the intended goals set by the teachers, teachers often deduced that their instructional problems were student-related. When SA8 shared the problems she faced in her 'Theme Study' class, SA8 perceived her problem as student-related:

> The students have a problem with thinking... there is problem with thinking... the students have a problem and there must be some other way... to direct them…well some people get it ... you know. (Wk. 2, C 1)

Similarly, when her students were unable to write a "simple conclusion" to a chart she gave, AL1 placed the blame on her students for not being able to think critically.

> I also linked it to my report writing... I expect them to analyze the data from the questionnaire...once when they come up with the chart... and make simple conclusions from the chart... they struggle… so based on the 90% of the students found… they smoke ...so what kind of conclusion can you make? So even those kinds of simple conclusion...they can't make...they can't think... (Week 7, C 1)

Like AL1, JO7 attributed her students' atrocious writing to their inability to 'think' in English: "because they are thinking in their language. I can see… this is all Arabic" (Week 5, C 2).

When students behaved problematically or showed some evidence of learning problems, teachers were also found to perceive the problem as student-induced. When CA3 told community members about Karim, HE5 and MI4 formed a quick conclusion that Karim was "seeking attention" (Wk. 4, C 1). Similarly, when ME2 shared her problems managing Halem, she first described him as someone with a "problem with his comprehension." Similarly, NA10 also believed that some of the problems she faced in teaching were generally attributed to her students' levels of proficiency and their attitudes: "However there are students from certain country…they have this problem… attitude and also the language is very, very poor…" (Wk. 1, C 2).

Teachers' perceptions of foreign students were also traced in the discussions. NA10, for example, perceived most of her Indonesian students as weak in the English language compared to her Malaysian students:

> The locals are not as bad as the Indonesian (students)… They manage better and I notice that you know if they've got...brain ability right (pointing to her head) they can cope much better and they progress much faster… they absorb the information much, much, more effectively but you know if they don't have you know brain ability then it's very difficult. (Wk. 1, C 2)

At one point during the discussion on LE6's dilemma, the community began to talk about Iranian students and their behaviour in the classroom. CA3 and JO7 perceived these students as loud, talkative, and expressive. CA3 shared that some of her Iranian students "like to clap…in the classroom" (Wk. 4, C 1). JO7 jokingly shared that if a teacher had a classroom full of Iranian students, "You won't even have the chance to say 'BUT'…There will be a lot of noise" (Wk. 4, C 1).

Teachers' general perceptions about students' cultures also emerged when teachers discussed the possible causes for students' perplexing behaviour or problems in learning. This was obvious when the teachers were discussing Halem and attributed his calm and confident behaviour in front of a female teacher to his Sudanese culture, which they believed perceived women as inferior to men. During the discussions on Omani students, some teachers related the Omani students' problems in learning English to their 'laid-back' culture.

Teachers did not only reveal the perceptions they had of their students, they also shared their perceptions of various aspects of teaching and learning. When SA8 and other teachers shared the difficulties and frustrations they faced in learning other languages, these teachers were implying that learning a second or a foreign language was a difficult experience. Similarly, when ME2 shared her struggles in learning literature, she was indirectly implying that learning literature was difficult. Some teachers shared their perceptions or beliefs about teaching and learning through their disclosures of classroom practice. When sharing her dilemma, NA10 also shared her general beliefs about the teaching of grammar:

> My approach is I don't want to deal with grammar as such because they already have learnt grammar right but…it's the sentences that I'm concerned with and for me I reached a point where I feel that subject-verb agreement error… never mind la… I use to think that is…major, major, major but now to me is ...never mind. (Wk. 1, C 2)

She also disclosed her belief that grammar should not be taught in isolation:

> I'm a great believer in not learning these things (grammar items) in isolation... when you give them a simple sentence…yes they can do it…when you give them a longer sentence somehow the errors disappear into the sentence… They can't identify and when you move on to the whole passage… it's all lost to them. (Wk. 1, C 2)

During her disclosure of her instructional dilemma, NA10 also shared her belief in the importance of being empathetic in teaching, an approach she adopted because of her own struggles in learning to use the computer:

> I believe in the soft approach… we just have to be very compassionate… we have to be very empathetic with them… empathetic is the word… because I realize it because when it comes to computer… I'm a bit *bodoh bodoh* (stupid)…I really can understand…you have to repeat and repeat and repeat very patiently with them. (Wk. 2, C 1)

When teachers shared their preferred approaches in teaching, they also revealed their beliefs about teaching and the appropriate ways to manage students. SA8, for example, revealed her preference for teachers who were strict in teaching but were passionate at the same time. LE6 shared the importance of being strict with students in the first few classes and only becoming friendly with the students once they are familiar with the classroom rules she imposed.

During the discussion on NA10's dilemma, teachers also disclosed their beliefs on the appropriate teaching materials to be used within language classrooms. During the discussion, SA8, ME2, and CA3 disagreed with NA10's choice of materials as they felt that the intermediate-level 'Market Leader' Business textbook used was too difficult for NA10's lower-proficiency students. To SA8, NA10's use of intermediate-level texts in her classroom was "quite unrealistic" and suggested that "you have to bring it down…you can only start with the elementary...do it then so it's like progression you know…" (Wk. 2, C 2). ME2 agreed with SA8: "They (the students) can't bring themselves up…" (Wk. 2, C 2). CA3, too, shared a similar opinion on the matter: "I think probably at this level may be you shouldn't give them business related articles… maybe give them something

that's easier for them to understand…" Teachers' responses to NA10's disclosure revealed their beliefs about the importance of using teaching materials which matched students' level of proficiency.

Another category of content identified in teachers' discussions was assumptions that teachers formed about instructional dilemmas, students, teaching, and learning.

5.2.4 Assumptions about Instructional Dilemmas, Students, Teaching and Learning

Another category of content identified in teacher interactions was assumptions that teachers formed about instructional dilemmas, students, teaching, and learning. Teachers, for example, collectively attempted to understand Halem's perplexing display of confidence of his ability in the English Language, which contradicted with ME2's perception of his 'actual' ability in the language. To understand Halem, teachers deduced that Halem's perplexing behaviour was because "he is having some kind of disability"; he suffers from a medical condition i.e., Autism or Asperger's syndrome; he has "a personality disorder"; he is "overconfident about himself"; he is "trying to fool himself"; "he doesn't understand instructions"; his native country, Sudan, is unstable and this affects his learning: "you don't know what happen in Sudan…it's a warring state you see"; "he is hiding something…some weaknesses"; "maybe he writes this because he wants to rebel against you"; "maybe he is not aware that he has this language problem and it's quite deep"; he was "maybe overpraised by his family or by the wrong impression given by people around him…over the years" (Week 7, C 1).

In the second cycle, when CA3 reported the mixed outcome she achieved in her experiment with inquiry-based teaching in two different classrooms, teachers formed various assumptions to understand why it happened. Teachers tried explaining the outcome of her experiment by relating it to students' personalities, motivation, attitudes

toward learning, language proficiency, the objectives of the tasks, and external circumstances.

Teachers also formed various assumptions when they tried to explain the reasons why CA3's Psychology students' writing quality during the final examination was worse than her Business students' writing, even though the Psychology students were more active and showed better responses to the inquiry-based activities she conducted. They attributed the students' inability to produce better written essays to: "over confidence"; their inability to apply the inquiry-method during examination as they were "on their own in the exam hall"; the inadequate time students had during the final examination; teacher's overpraising the students and it "gets to their head"; students' lack of general knowledge because they did not read enough; inadequate practice; anxiety because it was an examination; and students paying more attention to "other more important (Psychology) papers to study" (Wk. 1, C 3). They also formed assumptions that the inquiry-based activities employed in class only "help with the thinking of the thesis statement and the topic sentences" but students faced problems elaborating the content and that the inquiry-based activities only helped in organizing students' thoughts but not in writing the essay (Wk. 1, C 3).

The next category of content identified was suggested strategies to solve instructional dilemmas.

5.2.5 Suggestions for Improving Practice

When teachers disclosed their instructional dilemmas, community members collaborated to help the teachers solve their problems. They did so by suggesting various strategies or intervention plans which were in the form of either direct or indirect suggestions.

Most of the time, teachers gave direct suggestions to help teachers with the dilemma. These suggestions were strategies that teachers could directly employ in their classrooms. To help LE6 improve her teaching of spelling, community members suggested that she: 1) give out spelling quizzes in her classroom, 2) give students a list of words ending with 'e,' 3) provide students with a few words to memorize, 4) give crossword puzzles in her class, 5) reward students when they get their spelling right, 6) give students "a little bit more reinforcement" in order for them to get both the sounds and the spelling right (Wk. 4. C 1), 7) encourage students to proof read and edit their work prior to submission, 8) punish her students to repeatedly rewrite the words that they have spelt wrongly, 9) "find(s) words according to their needs… which difficult spelling they usually have problems and create all those lists in the category given to them" (Wk. 4, C 1), and 10) focus on "the double consonants" (Wk. 4, C 1). Direct suggestions given by teachers varied in their clarity. Some were specific, while others were more general. Teachers would collectively refine suggestions that they agreed with and when this occurred, suggestions given became clearer to the community members.

Some of the suggestions given were not direct and had to be implied. They came in the form of questions or through the sharing of hypothetical situations, such as, for example, an action that a teacher said she would take if she faced a similar dilemma within her own classroom. One example of an indirect suggestion was when CA3 forwarded her suggestion in a form of a question to SA8: "Why don't you ask them to... put them in a group and then they discussed among themselves… you think…they would be more analytical?" (Wk. 2, C 1). The question posed appeared to be more of a suggestion provided to SA8 to assist her in solving the problem faced in her classroom. MI4 provided an indirect suggestion through a hypothetical situation when she explained to SA8 what she would have done if faced with a similar dilemma:

> But if I were to do this exercise for the students to get them to see the whole picture... I will go through let's say... each chapter... and let them work out and I

> decide on the themes that I want… so divide the themes and find out chapter one which are the situations and the quotes and ...so you know work out... table of themes.... and subthemes and the places as references… (Wk. 2, C 1)

The suggestions teachers gave were found to be dependent on the obscurity and the generality of the instructional problems shared. When an instructional problem shared was unclear to the community members, suggestions given were more focused on how a teacher can collect more data or evidence to understand the dilemma. This was evident during the discussion on Halem. Apart from one or two suggestions to curb Halem's problematic behaviour (e.g., "Send him to the counselor" (MI4, Wk. 7, C1)), others were more focused on helping ME2 to understand Halem. They suggested that ME2 talk to Halem first for a "background check" (Wk. 7, C1); find a way to get in touch with his parents; have a "conversation with other lecturers who are teaching Halem" (Wk. 7, C1); or interview him to find out "how he learns English in school" (Wk. 7, C1). Other suggestions given were also focused on finding out more about his actual English Language proficiency. To do so, the teachers suggested that "We could ask him to read his work again...ask him whether he can understand what he is writing" (Wk. 7, C1); "ask him to read and explain to you…verbally" (Wk. 7, C1); and "show him (his work)… (and find out) whether he understands what you are showing him" (Wk. 7, C1).

Teachers gave suggestions that were more relevant to teachers' practice and context when adequate information was shared about the instructional dilemmas. When dilemmas shared were unclear, general, or too extensive, suggestions that teachers gave were merely general tips or common sense. (This will be elaborated in the following part of this chapter.)

Community members continued giving suggestions to a teacher with the dilemma when she continuously shared her problem or the outcome of her experiment with a new teaching strategy. Suggestions that teachers gave would continuously be refined when new data or evidence of practice was shared.

5.2.6 Personal Experiences

Another category of content emerging from teachers' discussions was personal experiences. When supporting a discussion on a dilemma, teachers did not only disclose their instructional practice, they also disclosed their personal experiences. Teachers, for example, shared their personal experiences learning a foreign language or a specific language component or skill, or their personal relationships and communications with other people, for example, personal friends, or other teachers who were not members of the TIC. Teachers disclosed their personal experiences to support the opinions and assumptions they formed of instructional dilemmas shared and to provide examples of practices they perceived as effective or ineffective.

When SA8 shared the struggles she faced in improving the quality of her students' responses to questions on literary texts, ME2 reacted to it by sharing her personal experience of learning English literature:

> Sometimes literature is quite complicated not in understanding but thinking deeper than what's on the surface....literature...poems... I know because I have the problems as well... I always see something different from the others..... I always see what's on the surface...so I have that problem as well when it comes to literature... (Wk. 2, C 1)

When discussing the struggles that LE6's students faced in learning a foreign language, teachers responded by sharing their own personal experiences learning a foreign language. SA8 reacted to the discussion by sharing her personal experience of learning German:

> I study a lot of German right... I always try to analyze myself how did I get this wrong? Because like when I email my friend (in German)... Whah! Your sentence structures... are not right.... because of the way we see our subject object... I put to practice you know... like sentence structure is a bit out... I will be getting feedback you know... and I was thinking...that's why when you go to somebody's country.... they make you study the language for one whole year....you have to study the language. (Wk. 5, C 1)

In another sharing session, other teachers shared their personal experiences in learning other foreign languages. MI4, for example, shared her struggles of learning to write in Chinese and learning Tamil: "I learnt Chinese I didn't want to carry on…even…Tamil …I will be like frustrated every time after the class." ME2 shared how frustrating it was to learn Russian: "I tried to learn Russian… half way done… because it's a different alphabet" (Wk. 6, C 2).

The personal experiences that teachers shared was not only limited to their learning experiences; teachers also shared personal communication they had with students. During the discussion on Halem, ME2 related some examples where Halem was unable to take part in a classroom discussion as his verbal contribution was off-topic. MI4 responded to ME2's sharing by disclosing her own personal experience communicating with Halem on one particular occasion. She described Halem's difficulty in following the directions she gave to another teacher's office:

> He turns into the corridor... when I told him to go STRAIGHT... towards that DOOR you see and then...ENTER... and you'll see the part-timer staff room you know from outside the library...to go to the part-timer staff room... you know...so he walked... turned into our academic staff.. I told him to go straight...so I let him out and I think... I took him... I led him…I led him all the way. (Wk. 7, C 1)

The discussion on Halem's perplexing behaviour triggered SA8's sharing of her communication with a personal friend who had problematic relationships with others because of Asperger's Syndrome:

> I have a friend... he's very successful... he works with computer data analysis.... he works with a big company...Korean company, very wealthy and all... sometimes he say something you know you think he is rude because the exchanges you know but for us when you have a question and a response...we give appropriate responses... He finds it a bit difficult ...he has very few friends.... and because we know... at first I felt that this person... what is this, so rude! Someone explained it to me... or otherwise I don't know...that that is his situation...so he easily go off track but that's my friend with Asperger's. (SA8, Wk. 7, C 1)

The sharing of personal experiences was also evident during the discussion on NA10's dilemma. In her disclosure, NA10 shared the problem she faced in managing her

students whom she thought were too dependent on her. Teachers responded by relating their own approaches in managing their own students. They also disclosed their colleagues' approaches (teachers who were not members of the TIC) in dealing with students within their classrooms. ME2, for example, shared the approach employed by a colleague who was strict but approachable at the same time:

> You look at for example Aini… you can feel that she is approachable, she is strict, she is friendly with the students but she has like this boundary…But don't cross that I can be your friend but once you cross that… (ME2, Wk. 7, C 2)

To support her disclosure, NA10 also shared a personal experience learning Geography during her A-Level:

> When I was a student you know, we were all petrified by our Geography teacher. She would come in you know and she didn't teach she would just question you know and we would all be standing…standing...standing…standing…we couldn't answer her questions alright she would just go out of the room very angry...went to staff room alright… or before she ...she went she would take her spectacles and throw them on the table, I don't know whether she broke how many pairs and she would go up to the staff room without her glasses and then she would be crying… (Wk. 7, C 2)

SA8, on the other hand, shared her personal experiences being taught by different teachers during her high school years:

> Okay, from my personal experience from my school time, I really like teachers who were strict because a lot of teachers who are strict but they are also very nice they will help you …when you take your book to them they will sit down and explain until you find. But then in class it will be like…so you see there are two sides you know, there are teachers who really want you to succeed… There are the teachers who really don't care alright, so I always come across and I have always wanted teachers like… people who …really push you in a way but then they also like to give you the support when you need it… (Wk. 7, C 2)

The next category of content identified was formal knowledge. This type of knowledge emerged when teachers discussed the content of journal and web articles which CA3 and SA8 brought into the TIC.

5.2.7 Formal Knowledge

Knowledge that surfaced during discussions on instructional dilemmas was not only contributed by the members of the TIC, it also emerged from the discussions on the academic journals or web articles shared by community members. From the discussion on these external sources, experts' opinions, factual information, and research findings on different teaching strategies teachers were discussing and experimenting with surfaced.

The journal and web articles shared by SA8 on inquiry-based teaching brought factual and researched information into the TIC. Teachers were exposed to the formal definition of inquiry-based learning, the different types of inquiry-based learning methods (structured, guided, and open), and the different purposes of inquiry-based learning (to build on old knowledge/to build new knowledge). Furthermore, a research article brought into the TIC also exposed teachers to another language teacher's attempt in implementing inquiry-based activities in her classroom. The article informed teachers on the importance of scaffolding inquiry-based activities, and it also provided them with a tested set of guidelines when using inquiry-based teaching to teach grammar. The information from the articles on inquiry-based teaching supported the teachers' discussion on the teaching strategy and increased teachers' understanding of it.

One other external source brought into the TIC was a research article on 'copywriting.' The journal article exposed teachers to past research on 'copywriting,' the rationale behind the activity, the research conducted by the author, who used 'copywriting' to teach English, the findings of the research (students' errors in writing was due to first language interference, etc.), and the implications for teaching (whether to use texts which were one level higher than students' level of proficiency or to use texts of the same level). The content of the journal article supported teachers' discussion on and enhanced teachers' understanding of 'copywriting.'

One other external source that was brought into the TIC was on 'paraphrasing,' which was shared by SA8. The article contained information such as problems faced by students when paraphrasing, the wrong assumptions that teachers form about paraphrasing, and the detailed steps of how to conduct a pre-paraphrasing activity. Two other articles on paraphrasing were shared by CA3. The first article shared a definition of paraphrasing, paraphrasing tips, and paraphrasing techniques. The second article contained simple descriptions of paraphrasing, summarizing, and quoting. It highlighted the differences between the three methods, provided a formal definition of paraphrasing, and suggested ways to paraphrase. The content of the articles triggered a discussion on how paraphrasing is taught, how to grade students' paraphrased sentences, and how paraphrasing tasks were graded in different language programs. It also extended the discussion on the paraphrasing activity which NA10 had prepared for her teaching in the coming semester.

The next category of content identified in teacher interactions during TIC meetings was probing questions.

5.2.8 Probing Questions

Another category of content identified in discussions on instructional dilemmas was probing questions. As inquiry is an important component in the protocol employed, a lot of questions were asked during discussions. Questions raised during a session explored some of the following areas: students' backgrounds and demographic information (motivation, attitude, behavioural problems, age, gender, learning background), classroom dynamics (number of students, foreign to local student ratio, male to female ratio, student-student relationship), classroom activities, teacher's reactions to implemented activities/students' behaviour, students' responses to teachers' instructions, course requirements, materials used in the classroom, teachers' expectations,

and opinions of an implemented action. When SA8 shared the problem she faced in improving the quality of her students' answers, community members asked various questions to understand the dilemma and the activities she conducted in her classroom: "Do they get pop-quizzes?"; "How much practice do they get?" (LE6, Wk. 2, C 1); "The outcome is the same every time… every semester?" (ME2, Wk. 2, C 1); "Do you use any other texts like a simpler one?" (CA3, Wk. 2, C 1).

Teachers asked various probing questions, particularly when an instructional dilemma shared was unclear and perplexing. To understand Halem, for example, teachers asked questions to find out more about:

1) Halem's behavior in class ("What is his interaction like in class?" No interaction?"; "But he is not quiet…in class?"; "He is always in your class?")

2) Halem's background (He is a Middle Eastern?"; "Did he pass any of his papers that he has taken so far?"; "He didn't go through IEP?"; "What course is he doing?")

3) His language proficiency ("But when he speaks his language is good?")

4) The program that Halem had enrolled in ("How many times can he repeat?"; "Then what is his prerequisite to enter?")

5) ME2's way of handling Halem ("Why did you force him to do it?")

6) The role of the program in managing students' attendance ("How come nothing was done when he didn't attend class?"; "The school…don't they have the web attendance…don't they check?")

(Wk. 7, C 1)

When ME2 responded to the questions posed by community members, she exposed a lot of information about Halem, the way she managed him in her classroom, and how her language program managed such students.

More questions were posed about an instructional dilemma when teachers shared new information or new evidence of practice. In a follow-up discussion on Halem, teachers requested clarification of Halem's actions and responses during his meeting with ME2: "But what about his understanding of instructions?"; "But the 'character reference' he couldn't?"; "How did he respond to *that*?" (*that* refers to 'He has to repeat if he failed three times'); "You want to see him at one…. How did he reply?"; "What did he say when you point out his errors?" (Week 8, C 1). Teachers also requested clarification on whether Halem knew of the consequences of his behaviour ("Does he realize that he has to repeat?"); ME2's communication with Halem during the meeting ("So you reinforce that these are paragraphs?"; "But after that he followed your instructions right?"); Halem's studies background ("What course is he doing actually?") (Week 8, C 1); and information about another subject that Halem had enrolled in ("Who is teaching 'Management'?") (Wk. 8, C 1). Similarly, teachers asked a lot of probing questions to understand the different outcomes achieved when CA3 applied inquiry-based teaching in two of her academic writing classrooms. Teachers asked questions to understand how she conducted the inquiry-based activities, the dynamics of her classroom, and her future plans.

Questions posed by teachers were not only directed to the teachers who shared their dilemmas, they were also directed to teachers who shared ideas, or opinions which they found unclear. When SA8 she shared a personal experience with a friend who had Asperger's Syndrome, none of the community members was aware of such a condition, and they requested SA8 to provide an explanation on how to diagnose the condition and to give examples of 'rude comments' that her friend made when communicating with her: "Is there a way to find out or to diagnose this?"; "Could you just give him a test?"; "Can

you give an example?"(of a rude statement made by her friend with Asperger's to her) (Wk. 7, C 1).

HE5's disclosure on the anxiety she experienced when marking argumentative essays for the first time prompted SA8's disclosure on how essay marking was handled in her department. This sharing triggered a lot of probing questions, such as, for example, how many essays were marked per teacher, how much time was given to each teacher to mark the essays, how the essays were marked, and what was done after the individual marking process was completed.

The other category of content of discussions identified were expressions to show agreement or disagreement over the sharing during discussions on dilemmas.

5.2.9 Expressions Showing Agreement and Disagreement

Another category identified in teacher interactions was expressions showing agreement and disagreement. When CA3 shared the analyses of her Psychology and Business students' examination results, she disclosed that her Psychology students scored worse than her Business students in their argumentative essays, even though they appeared more involved in the inquiry-based activities she conducted in her classroom. To make sense of the dilemma, ME2 stated the possibility that perhaps the Psychology students were unable to write good essays during the final examination because "they are social learners" and they "enjoy doing things together but that does not mean that…individually they know how to apply the same thing" (Wk. 1, C 3). AL1 openly expressed her agreement with ME2's opinion when she shared an observation of a similar event in her own classroom:

> I think I agree with ME2. If they are social learners they tend to be louder because I had similar classes you know Business students, BAF (Accounting and Finance) and BBM (Business Management). The BBM students were louder, they are very loud, they are very interactive you know it's fun to teach them but the ... BAF students they are very quiet so once you go into the class you can see… that they are so quiet… you know that they are very quiet even if you want to ask them

> question they don't really you know reply to you… respond to you. But at the end... for the exam the quieter class did better…so doesn't matter if they are quiet or noisy in the class, so it's how they learn. (Wk. 1, C 3)

During the same discussion, CA3 shared her opinion that students needed time to internalize what they had learnt. SA8 agreed with CA3, "But I agree with CA3... and it takes time...it takes time for them to actually internalize not something that…hey you know this is your technique and then you get it…it's not like that...it takes time" (Wk. 1, C 3).

Similarly, this was observed during a follow-up discussion on NA10's dilemma. NA10 shared an activity that she conducted to increase her students' involvement in their own learning. Students were given two sentences with errors and they were required to correct them. Students were then asked to present their analyses and their corrections of the sentences. When correcting the sentences, NA10 instructed her students to focus only on the errors which affected meaning or comprehension. SA8 endorsed NA10's decision to focus only on these errors when she said:

> I agree with NA10 earlier that how much can...I mean some you cannot address… you are right you know...they will forget… you know the very glaring ones that can… which they should know like in addition, additionally. That kind of thing which you have to learn and learn how to use… in essays. (Wk. 2, C1)

In another example, during a discussion on 'copywriting,' ME2 shared her belief in the importance of reading to improve proficiency in the English language:

> I always believe that, any time, every time the students ask me 'Okay… how do I go about to improve my English?' I said read, read and read you might not believe me now, you read a lot and somehow…yes... they will improve. (Wk. 3, C 3)

MI4 agreed with ME2 when she shared that in her opinion, "You have to impose reading." SA8, too, was supportive of ME2's opinion, and she endorsed it by stating how reading could help students in their thinking and writing:

> Reading will help them because they will have some ideas because I find in my level they had just so out of ideas you know they are lazy to go into the internet and they just want to stick to the text book…They can go into Diploma after level

> 3 so they must have a particular level of thinking and I think only reading can get them there. (Wk. 3, C 3)

Teachers also showed agreement with another teacher's approaches to teaching when they disclosed that they were employing a similar approach in their own classrooms. To improve Halem's business letter writing, LE6 suggested that ME2 identify:

> …very common phrases used in application letter...and maybe just get him to make…fill in the blanks or make sentences…write based on... like directed writing like a guided writing but FOR business letter... (Wk. 8, C 1)

HE5 showed agreement with the strategy suggested by LE6 when she shared a similar strategy she applied in her classroom to improve her students' business writing: "I actually use that in my class... you know the type of expression you can use for writing introductions... what kind of expressions that you can use to complete letters and all..." (Wk. 8, C 1).

When negotiating knowledge or information that surfaced during discussions on dilemmas, teachers showed disagreement when they perceived others' ideas, suggestions, opinions, or assumptions as inappropriate or inaccurate. During a discussion on Karim, HE5 and MI4 formed a quick conclusion that Karim could be behaving in such a way because he was "seeking attention" (Wk. 4, C 1). JO7 refuted HE5 and MI4's quick judgment when she said, "Actually not accurate…we cannot judge students in the first class…" She then provided various reasons to explain Karim's behavior: "There could be a language barrier but also...they are assessing the situation themselves…" (Wk. 4, C 1).

In one of the sessions in the third cycle, SA8 disclosed her problems in teaching reading comprehension. She found that her students were not using their own words when answering reading comprehension questions. Instead, they lifted their answers verbatim from the text. Responding to this disclosure, SU9 expressed her opinion on the matter: "It is expected of them to use their own words for the exam…" (Wk. 3, C 3). ME2, who also taught Business English to DIBA (Diploma in Business Administration) students,

disagreed: “But you need to tell them, like my students…lifting is not allowed if you lift you don’t [get] the full marks even though it’s the correct answer” (Wk. 3, C 3). JO7, on the other hand, disagreed that students should merely be told and not taught the skills on how to answer the reading comprehension questions in their own words:

> But if by so doing you sort of… force the students to come up with their own answers and then to be fair how are you going to handle their weak skills, the vocabulary and if they are really weak? So by so doing okay…I can’t…I can’t… I don’t have the means to do it… so you must try to fix both, why you incorporate this which is necessary but you also have to help them, there must be a skill builder of some form otherwise it’s just not justifiable. (Wk. 3, C 3)

As SA8’s students were not very proficient in the English language, it was suggested that her students should first discuss the answers to the reading comprehension in groups and then answer the questions individually. ME2 disagreed with this suggestion: “No… it might not work for… I don’t know…but the diploma level because they will just let their friends do it for them and it will not get anything… from there” (Wk. 3, C 3).

Teachers’ use of expressions to show disagreement was also evident during the discussion on Karim. During the discussion on Karim, JO7 expressed her opinion on the importance of praising Karim for good behaviour. CA3 asked whether praising should be done “in front of everybody else?” MI4 responded, “Privately.” JO7 then asked: “Why not in front of everybody else?” (Wk. 4, C 1).

Teachers did not only use expressions to show agreement or disagreement during discussions of dilemmas, they also gave comments to show support towards one another. This was reflected in the empathetic and supportive comments they expressed to each other during discussions on instructional dilemmas.

5.2.10 Empathetic and Supportive Comments

Another category of content identified in the discussions on instructional dilemmas was empathetic and supportive comments. Teachers made a lot of these

comments when they responded to other teachers' sharing, particularly when teachers shared the struggles they faced in teaching and the effort they took to improve students' learning.

In one of the discussions, HE5 shared that she felt anxious to mark her students' argumentative essays: "You see...I don't really teach writing course ... so I supposed ... that is also one of the issues" (Wk. 6, C 1). Teachers showed support by giving her some suggestions to help her reduce her anxiety. LE6 suggested that HE5 could listen to "classical music" while marking; CA3 suggested that HE5 examine previously marked scripts to get an idea of how to grade essays; and ME2 suggested that HE5 mark the papers with other teachers. SA8 also showed empathy towards HE5 when she said:

> That is normal...because it is really subjective... you will not be giving the exact mark the other person gives...If it's like really different... then we can sit down and discuss... I mean...I understand your problem... I think a lot of people have this problem because if we didn't teach that type of writing before and then it takes time for them to get used to it. (Wk. 6, C 2)

The discussion on different teaching styles and approaches and their effects on teaching and learning within the classrooms revealed that NA10 might have been too empathetic with her students. This resulted in her students being too dependent on her. At one point during the discussion, NA10 shared her anxiety about changing her approach to teaching:

> I have to decide very definitely… no I don't want to appear as very strict because you know…I am not comfortable with it but at the same time when I think I see you know attitude is not correct then I think I have to be very firm …but it's always got to be one to one. (Wk. 6, C 2)

ME2 showed her support for the approach NA10 had adopted as an attempt to reduce her worry over her style of teaching:

> I think your style so far has worked well because if you say 80 percent of the students, you don't have any problem with that... meaning that it's just that of course wherever you go you get this 20, 30, 10 percent of problematic students…so with them maybe as you said you just be stricter on those… (Wk. 6, C 2)

When CA3 shared her disappointment over her Psychology students' performance during the final examination, other group members pacified her and showed support for her effort. Some of them collectively agreed that if she had not conducted the inquiry-based tasks in her classroom, perhaps her students could have had done worse during the final examination.

Community members also showed support and empathy towards SU9 when she shared the constraints within her practice. SU9 had twenty-two students in her classroom, which many teachers thought was too big for a proficiency class. AL1 was sensitive to SU9's predicament when she said, "You should take more teachers to accommodate smaller groups…I felt so sorry… the number of students… the one like you said is a serious issue" (Wk. 6, C 2).

Another category of content identified in teachers' discussions of instructional dilemmas is irrelevant or off-tangent information.

5.2.11 Irrelevant Information

One category of content identified through analyses of teacher interactions was irrelevant information. Sometimes, during discussions, teachers went off tangent. In such cases, they would share information that had little relevance to the sharing. This was observed to occur only sporadically. However, it was observed that irrelevant information would be more obvious when dilemmas shared were vague or unclear. When this occurred, discussion on it became loose and contained strands of irrelevant information in it.

Teachers at times shared irrelevant information pertaining to their students. In one particular instance, a discussion on LE6's dilemma diverted to a discussion on the problems teachers faced in teaching English to students of other nationalities. The discussion then diverted to the reasons some Chinese students were unable to pronounce

some English words. One of the teachers, who was also Chinese, shared her opinion that the Chinese students had problems pronouncing English words because they were fond of eating 'tongues.' Another group member prevented this discussion from continuing when she warned the other teachers not to stereotype the students.

The sharing of information about Tonto was also considered as irrelevant as Tonto was shared when teachers were discussing LE6's dilemma, the problems she faced in improving her students' spelling. JO7 shared how she used Tonto to communicate with her students and how she used it to teach grammar, particularly English prepositions. Sometimes, teachers also shared funny events occurring within their classroom which were irrelevant. JO7, at one time, shared an incident with community members where she tore her blouse because of her "vigorous" teaching.

Teachers were generally receptive of such sharing. MI4 and HE5, for example, made note of irrelevant information that seeped into the discussions, but both welcomed them as they felt that it made the discussions light and not too serious. AL1, however, was not happy when teachers went off-track:

> When you are explaining a particular point, someone will think of something else of nowhere ... nowhere related to this particular topic and when someone takes off to that particular point and that's where the exaggeration starts to a point not related to what we are discussing. So focus is also important…you follow the track so you feel…out of place you know, so your thinking is blocked… so for you to come back on track, it will take some time… (Interview, C 3)

LE6, too, was not happy "when a teacher went off track and talked about her own experience in class rather than providing solutions" (QQ, Wk. 5, C 1). The discussion on LE6's dilemma, because of its extent and obscurity, went off tangent a number of times. This perhaps explained her frustration.

5.3 Analytic Summary

Analyses of teacher interactions revealed that a lot of information and knowledge emerged during the discussions on instructional dilemmas. The main content of teachers' discussions was knowledge pertaining to teachers' instructional practice, such as, for example, the problems they faced in teaching, the approaches and the strategies they employed, the dynamics of their students and classrooms, the activities they carried out, and the outcome of their experiments with new teaching strategies. Teachers not only disclosed their instructional practice, but they also shared information relating to their language programs. This gave community members an insider's view of the kinds of language courses taught in other programs. When taking part in discussions, teachers also disclosed their perceptions, beliefs, and assumptions about students, teaching, and learning.

When supporting discussions on instructional dilemmas, teachers not only shared knowledge which emanated from within their classrooms or programs, but they also shared personal information, such as their personal experiences with students, other colleagues and personal friends. Another type of content that was evident within discussions on instructional dilemmas was formal knowledge from experts and research findings found in journals and web articles shared. Such knowledge emerged when teachers were discussing contents of external sources brought into the TIC by two of the teachers.

The abundance of knowledge and information emerging from the discussions on instructional dilemmas showed that the mechanism activated by the protocol was effective at generating knowledge for teachers to reflect on and experiment with. The process of problematizing practice and inquiry prompted teachers to share obscure information about their practice, language programs, learning, and personal experiences, perceptions, beliefs, and assumptions about students, teaching, and learning.

The fact that a lot of information was shared during community sharing also showed that the TIC members were supportive of the protocol employed and of each other. The protocol might not have worked if community members were not willing to share, and they were not genuinely trying to help other teachers solve their instructional dilemmas. Furthermore, the extra effort that some teachers took in reading and finding external sources to share with other members of the TIC showed that they were supporting the objectives of the TIC. The fact that there was only a limited amount of irrelevant information emerging from the discussion also showed that teachers were generally serious about supporting the processes within the TIC.

Analyses of teacher interactions also revealed that the TIC was not behaving like a 'pseudocommunity.' Teachers did not shy away from conflicts; they voiced their disagreement when certain sharing did not support their own opinions, beliefs, and perceptions about students, teaching, and learning. This triggered the generation of different views and perspectives on different aspects of teaching and learning. Despite this, there was also evidence of teachers being supportive and empathetic towards each other. They endorsed ideas that they agreed with, showed support and empathy for other teachers' predicaments and efforts to improve their practice. There was also evidence of teachers' tentativeness when they expressed their suggestions in the form of questions or through hypothetical situations. These findings showed that healthy generation of knowledge was possible in an environment where teachers address conflicts emerging from their discussions on instructional dilemmas but, at the same time, were supportive of each other.

The next part of this chapter explores various factors existing within different contexts which affected the processes identified within the TIC.

5.4 Factors Impacting Processes within the TIC

Many factors influenced group and individual processes within the TIC. Different factors were found within three different contexts (community, individual, and workplace), and these factors had varying impacts on the processes occurring at group and individual levels. The factors within each context and their effects on the processes within the TIC are discussed below.

5.4.1 Community Context

Different factors within the community had an impact on collective processes and individual teachers' processing of knowledge learnt. They are the features of the TIC, the community members, tools, and the instructional dilemmas shared (View Figure 5.2 for factors within the community which impacted group and individual-level processes).

5.4.1.1 Features of the TIC

One of the factors within the community that had an impact on group processes was the setup of the TIC. One aspect of its setup which had a positive influence on collective knowledge generation was teachers' voluntary membership, which brought together a group of teachers who were motivated and like-minded about improving practice:

> Like many individuals in the community, we have the same motive that means we want to learn, we want to learn how to improve our instructional practice or anything related to teaching to become a better teacher. (HE5, Interview, C 3)

Having one similar objective for being in the TIC, according to LE6, created "a sense of belonging..." among the teachers (Interview, C 3). Teachers reported "being among family" (HE5, Interview, C 3) when they were in the TIC. This motivated them to attend the meetings despite their differences in needs and backgrounds:

Figure 5.2: Factors within the Community which Impacted Group and Individual-level Processes

> There is a sense of belonging to the same group… a sense of being in the same community and where it's like you know you look forward to what people have to say… what the teachers have to say every week, what happen in the class and all that so there is a sense of belonging to the group although it's made up of different teachers teaching different courses and to different students. (LE6, Interview, C 3)

It was also the informal and voluntary nature of the sessions that motivated community members to turn up week after week:

> I don't have any expectation whatsoever when I first joined. However I know that within these three cycles we can leave at any time. You are not forced to continue being in the group for the whole three cycles, for the whole one year, you can… I mean there's no rules and regulations that you cannot leave… the moment...once you joined you have to stay …no. But it must be something in there that just keeps me not leaving the group. I learnt a lot of things in there so…somehow there are a lot of things happening inside the community that just keeps me inside the community. (ME2, Interview, C 3)

These aspects of the TIC had a positive impact on group processes as they reduced inhibitions and encouraged sharing. It made the atmosphere within the TIC "light and enjoyable," which "actually helps to make participants feel more relaxed and less reluctant/intimidated to share their thoughts to any problems discussed" (ME2, QQ, Wk. 1, C 2). NA10 shared a similar feeling about being in the TIC: "I like the informal-ness of the meets. We feel more comfortable about speaking our thoughts" (Interview, C 3).

Another positive aspect of the TIC which had an impact on knowledge sharing was its exclusivity. Community members were informed prior to the project that communication within the TIC was confidential and was limited to only community members. They were, in fact, reminded not to disclose issues raised or discussed within the TIC to others. Furthermore, community members were also aware that none of their superiors would have access to the communication taking place within it. This, to a certain extent, made the learning environment within the TIC less threatening, which reduced teachers' inhibitions to disclose problems in practice.

One other positive aspect of the TIC that had a positive impact on knowledge generation was that the meetings took place during lunch time. It was coincidental that when teachers were having their lunch together, they would talk about their personal lives. While having lunch, teachers bonded. They shared stories about their children, their holiday plans, and exchanged recipes and tips on raising kids. It was during lunch that teachers "find out about each other' lives" (HE5, Interview, C 2). As a result, they became closer and grew more concerned of each other's problems, both in their personal lives and in their instructional practice. As stated by NA10, the community meetings were "facilitated by food, of course!" (Wk. 7, C 2). To LE6, the fact that the sessions began after lunch "made it very relaxing." (Wk. 2, C 1). It gave the sessions an air of informality and made community members look forward to the session:

> Lots of giggles you see …instead of being sober… so solemn during those discussion…probably people don't want to turn up because it's too serious...everybody is relax…so we all always look forward to that Friday session where we can eat…see what's coming up on the menu and we talk and we feed and when we are all well fed, we will speak up and then we joke…It's a good one hour lunch break (MI4, Interview, C 1)

The fact that the TIC went on over an extended period of time also had a positive impact on knowledge sharing. In the beginning, a new teacher like ME2 felt that "sharing your problems with other lecturer can be a bit daunting. You might feel that others might judge you" (Wk. 2, C 1). LE6 shared similar feelings of anxiety when she first joined the community:

> During the first cycle it was a bit awkward, sort of detached you know because this is the first…the inquiry community... it's a different kind of experience where we meet every week once…I was a bit detached I don't feel very close to the members. (Interview, C 3)

As time progressed, members became more comfortable with each other and this eased sharing. By the sixth week of the first cycle, MI4 shared her positive feelings about being in the community: "Comfortable; by now, I felt everyone is at ease with each other's

company" (Wk. 6, C 1). In fact, MI4 observed that "there is an obvious level of camaraderie among the participants which has been developed positively over time through the weekly sessions" (Wk. 6, C 1). At the end of the second cycle, LE6 shared how she felt knowing that the inquiry community meetings had come to an end: "I feel sad and happy at the same time knowing that it's the final meeting for the term and that we will continue the sessions next year" (Wk. 10, C 2). The fact that the TIC meetings were generally informal and took place over an extended period of time helped develop a strong sense of belonging among the community members, which had a positive impact on knowledge sharing:

> The first cycle... it's special on its own. The first one we were still new to one another and we were still new to this inquiry community, so now I noticed that now we are on the last cycle, we are more comfortable with one another and ... Somehow we are freer to give suggestions, to comment on one another compared to our first cycle because we know one another better, we have been together for a while, almost one year. (ME2, Interview, C 3)

Generally, all of the features of the TIC were positive in supporting knowledge generation with the community.

5.4.1.2 Community Members

One other factor within the community that had an impact on group processes was the community members. Many positive characteristics of the community members promoted knowledge sharing and knowledge negotiation, which supported the discussions within the TIC.

5.4.1.2 (a) Professionalism

Most, if not all of the teachers, displayed high levels of professionalism when they discussed and attempted to understand and find solutions to dilemmas shared. Community members were described as "very civilized" (ME2, Interview, C 1); "very professional,

very mature and very sensitive to other people" (SA8, Interview, C 1); and "diplomatic" (LE6, Interview, C 1).

Teachers' show of concern over the instructional dilemmas faced by others was another positive quality which reflected community members' professionalism and commitment. Teachers "care for each other" (HE5, Interview, C2), and they appeared to be genuinely concerned if another teacher shared a daunting problem in her practice. After the discussion on Karim, for example, SA8, who was one of the most active participants during the discussion, was worried about the outcome of the suggested strategy:

> The suggested solutions can either solve the problem or aggravate it. Human behavior is unpredictable so I am a bit concern with what the outcome may be. (QQ, Wk. 3, C 1)

In another sharing, SA8 related her feelings of uneasiness when she realized that she could not contribute to LE6's sharing of her dilemma because of her limited knowledge in the area discussed:

> The most disturbing thing is, I myself have never quite taught students on how to work on their spelling. Perhaps it's because I do not teach low proficiency students. Regardless, it disturbed me that I had no real suggestions to offer. (QQ, Wk. 4, C 1)

Teachers were generally supportive of each other. When teachers shared their problems in practice, community members would go "through the same pain as those lecturers" (MI4, Interview, C 1). After taking part in the first cycle, SA8 also observed that "everybody wanted to try and help" (Interview, C 1).

CA3 felt the same and perceived the community members as supportive and committed to helping the teachers with dilemmas: "If you tell them your problems and they will take it like it's theirs and they discussed about it you see. So I think there are very supportive" (Interview, C 2). Such feelings of support through genuine show of concern motivated teachers to lower their guard to disclose their problems and practice.

It made teachers like NA10, who was the only one in-charge of the language program in her department, feel revived and supported.

Another display of professionalism by community members was their criticality of each other's contributions. It was observed that teachers did not forsake their stands on matters or issues raised in order to maintain harmony within the teacher community. They did not avoid confrontation but appeared to respond to it by openly expressing their opinions, views, and perspectives on what they did not agree with. By being critical, multiple perspectives on issues or dilemmas surfaced. This increased teachers' awareness of other teachers' views on the issues discussed and promoted evaluation and exploration of teachers' own approaches to teaching. Through the process of knowledge negotiation, some teachers came to realize that the approaches they adopted in their classrooms and the roles they played in their classrooms could have negative impacts on practice.

5.4.1.2 (b) Diversity

Another aspect of the community members that influenced knowledge generation with the TIC was diversity. Teachers within the community were diversified in terms of their teaching, work experiences, and education backgrounds. This resulted in the sharing of multiple perspectives of the dilemmas or issues raised, as described by ME2:

> You can see a problem better because there are eight or nine points of views looking at one problem in a different way… nine different ways, which is much better than looking at one problem from one point of view. (Interview, C 1)

MI4 shared a similar perspective on the aspect of diversity and its impact on community sharing: "Diversity promoted exploration on a problem from a diverse aspect… aspects which we ourselves were not aware of…" (Interview, C 1). Having diverse backgrounds enabled different types of knowledge to emerge:

> We are not from the same back ground …one is coming from fifteen, one is coming for two years, three years (experience) and then one is coming from the

> private sector, one is coming from the government sector you know, so it's like a... collaboration of knowledge, I would say you know, knowledge and experience. (AL1, Interview, C 3)

Diversity in terms of teachers' backgrounds, in other words, encouraged idea exchange, problem exploration, and conflicting opinions and views on matters raised. As a result, teachers were exposed to information that was not obvious to them:

> Because all of us come from different background I think when you talk about it (instructional dilemma) everybody will start to explore and based on their experience or based on their knowledge they will tell you things that you don't know. (HE5, Interview, C 1)

Diversity had a positive impact on group processes pertaining to knowledge sharing. However, it was found that since teachers were teaching students who were at different levels of proficiency (from elementary to advance level) and different language components and skills, they were diversified in terms of their immediate needs and contexts. As this was the case, the discussions within the TIC were not always relevant to all the teachers. At times, discussions within the TIC were more relevant to teachers who were teaching more complex skills like critical thinking and argumentative essays to more proficient learners, and at times, it was more suitable to teachers who taught lower language skills (e.g., sentence construction, spelling, and paragraphing) to less proficient learners.

For example, HE5, who was teaching English for Business (Degree level) to intermediate to upper-intermediate learners, was not able to relate to the sharing on 'copywriting,' which she believed was "not going to help my students that much" (Interview, C 3). Because 'copywriting' was discussed within different sessions, HE5 felt that "…we spend too much time on copywriting per se…" (Interview, C 3). She also even expressed her frustration over the prolonged discussion on 'copywriting': "I believe that in a community in order for the learning to be continuous, I mean it has to move on, so if you are stuck with one issue or one method then…" (Interview, C 3).

Similarly, when SA8 was teaching 'Theme Study' under the MUFY program, all of her students were proficient in the English language. As a result, she was not able to respond to the problem LE6 shared on improving her students' inaccurate spelling of English words because LE6 was addressing an issue that was not pertinent in her teaching:

> I could not relate to LE6's problem with teaching spelling as this is something I have not encountered. Since, I teach at pre-university level, the students just refer to their dictionary to help them with their spelling. I myself have never quite taught students on how to work on their spelling. Perhaps it's because I do not teach low proficiency students. (QQ, Wk. 5, C 1)

AL1, who was teaching mostly Degree students, also highlighted her inability to relate to sharing what was "IEP-level related" because, as she said, "I couldn't relate (them) directly to my students" (Interview, C 2). Similarly, this occurred when sharing within the community focused on the teaching of higher and more complex skills such as critical thinking and argumentative essay writing, which seemed to only benefit teachers who were teaching those skills in class to more proficient language learners. The concern over the TIC's dynamics and its impact on content relevance was expressed by JO7 as early as after the completion of the first cycle:

> If you were to call for a group of IC community that comprises of people from different departments…the intention is good but I am not too sure how productive it can be in the end. However but if you would consider having the same idea and concept within a department like what we are doing now let's say even be more specific let's say it's a...it is you know group specific like IEP you know within IEP another group within UCSU you know in IC group I think that would be more beneficial because then we have a common we would have a lot of common issues that we can share and we can deal...deal with… immediately… (Interview, C 1)

5.4.1.2 (c) Willingness to Share

Generation of varied knowledge and perspectives was due to teachers' diversified educational and teaching backgrounds. This would not have happened, however, if the community members were not willing to share. The TIC never ran out of instructional dilemmas to be discussed, and when taking part in discussions, teachers rarely held back

and were often willing to share their thoughts, experiences, and opinions on matters raised: They "always have something to say" (ME2, Interview, C 1). After implementing suggested action plans, teachers were also willing to share the outcomes of their experimentation, regardless whether the action plan was successful or a failure. The willingness to share was also evident when teachers CA3 and SA8 shared journal and web articles on teaching strategies explored within the TIC with the community members, even though this was never part of the protocol. Teachers like JO7 and NA10 also showed willingness to share activities they had designed with the TIC. Willingness to share was one of the positive attributes of the community members, which promoted the generation of an abundance of knowledge, as stated by SU9:

> They had actual problems which they could raise and not only did they raise, they came up with ... more paper work and research on it ... so they submitted research work on it, so it was like a full package, you have a good deal you know. So I think that's where my all the new knowledge emerge when… we had you know feedback and you know how… not only research paper on it but also when they used it in class and how they came back and they said what happened, that… that was really good…was really good. (Interview, C 3)

5.4.1.2 (d) Open-mindedness

Another positive attribute of the people within the community which had a positive impact on knowledge generation was open-mindedness. Many of the teachers believed that this was the trait of most of the teachers within the community:

> I observed that almost all the members in the group are very open-minded…because if you want to learn something, if you want to learn a new value, the first thing is you have to open up your mind... you have to taking the critiques of the others, of others and then put forward your own critiques you know, you have to take in first before you take it out. This is so obvious in the team, almost all of them actually portrayed this character which I think... that actually promotes learning because that is the first thing that you need for learning… open-mindedness… (AL1, Interview, C 3)

MI4 also shared a similar opinion about the open-mindedness of the community members:

> So everybody… all the participants are willing to share and are open minded ... I don't see where the hindrances could come from and there's nobody in our group who is like a... narrow minded and unwilling. (MI4, Interview, C 2)

Being open-minded, according to CA3, is an important trait that supported her own learning within the community:

> Like you know when you say something I can accept it you know even though it's a critique or something that is not nice to hear but I try to accept it and try to make changes. So I think that is another thing that is very important…you cannot be too defensive and you know things like that. (Interview, C 3)

The open-mindedness perceived by community members of each other supported group-level activities as because of their open-mindedness, teachers were willing to disclose their thoughts and opinions about a dilemma or an issue or share their experiences and give suggestions. This professional trait also enabled teachers to speak their minds even when voicing their disagreement:

> Yes we are quite open to… criticism. It's all constructive, so that's why I think during the discussion, there are a lot of comments or suggestions made freely by everyone so it's freely given by everyone…I think because we know that there's nothing personal, we are quite open to all of that. (HE5, Interview, C 3)

5.4.1.3 Tools

The community setup and the people within the community generally promoted the generation of knowledge occurring at the group level. One factor which impacted collective knowledge generation and processing and individual teachers' processing of knowledge learnt was the tools found within the TIC: the protocol used, the evidence of practice shared, the qualitative questionnaires employed, and external sources shared.

5.4.1.3 (a) Protocol

The protocol supported the collective activities occurring within the community as it kept most of the discussions focused. It systematically aligned the interactions taking place within the community to focus on understanding the instructional problems raised

in search of their solutions. Even though most of the time, a discussion on a dilemma could take several sessions, the protocol held it together:

> The IC (inquiry community) is where everybody is there… at the same time at the same meeting and then the questions are proposed and the solutions are provided if discuss within… the same time otherwise it is brought forward again the same place at the same time the following week, it's a delay of one week but it's all focused. (MI4, Interview, C 1)

To a certain extent, the protocol filtered unnecessary information by "put(ting) boundaries" on the discussions (SA8, Interview, C 2). Instances of discussions that went off-track were rare as the protocol employed would bring the discussions back to the dilemma. It would also bring the discussions back on track when teachers became too focused on finding solutions to the dilemma raised as it activated the process of inquiry to explore the problems shared before diagnosing them.

The protocol also supported group processes, particularly the generation of knowledge in the community as it was inquiry-driven. The inquiry-driven process encouraged teachers to clarify and refine the instructional dilemmas shared in order to understand them. This led to accumulative sharing, and it made discussions on dilemmas exploratory, resulting in the emergence of different types of knowledge. For example, when teachers probed the possible reasons for a student's problematic behaviour, teachers did not only look at the problem from "one aspect but probe all the possibilities as to why a particular student has the learning disability" (MI4, Interview, C 1). From such sharing, teachers reported learning about new conditions like Asperger's syndrome as a possible cause for students' learning problems. The protocol also brought the teachers together as it ensured that everyone shared a similar learning objective: "We know for sure that we come here for a purpose, we want to share problems or we want to at least listen to problems" (HE5, Interview, C 2).

The protocol not only supported group activities, but it also supported teachers' individual processes of knowledge learnt. The protocol prompted teachers to disclose

their practices and clarify and question shared knowledge on practices. It was this process which prompted some teachers to reflect and question their own practice and their beliefs about teaching and learning. It helped some teachers recognize flaws in their own teaching: "When you listen to them you might realize that it might relate to some of your experiences or your weaknesses maybe in handling a problem" (SA8, Interview, C 1). The protocol not only encouraged reflection on practice, but it also encouraged teachers to experiment with newly learnt knowledge. After the sharing of a dilemma, the protocol would require teachers to implement the strategies suggested and to record or collect data to be shared with the community. For a new teacher like JO7, it was the much needed push that she needed to start experimenting on her practice:

> I need that push… it's a much needed push because I haven't been teaching long enough to know extensive… how extensive you know and how much work can be done or need to be done. (Interview, C 3)

The "much needed push," provided by the protocol, motivated her to collect data to understand her Omani students' struggles in their learning of English and her own practice:

> It activated something in me…I did you know do something that I have never done before in my life you know coming up with some worksheets, doing some survey, conducting survey in the class which is something that I have …I have never done before so in a way it actually you know act as a stimulant for me to do something different for my class. (Interview, C 2)

As a result, teachers' classrooms became a testing ground to test out new ideas and strategies: "It's like a process… like you can test and you bring it back and test…." (ME2, Interview, C 1). Learning became a recursive process where teachers shared their problems, experimented with suggested strategies, shared the outcomes and continued experimenting based on new sharing:

> You try to you know solve the problem using certain method, it might work for some it might not work and then you have to go back to the drawing board and then where do go from here. (SA8, Interview, C 2)

The protocol made teachers experiment with new knowledge and learn from such experience. This benefitted both the teachers who shared the dilemmas and others who took part in the discussions as it improved teachers' understanding of the dilemmas and increased their awareness of the complexity of the teaching and learning process.

The protocol also sustained sharing on dilemmas providing support to both group and individual processes. A discussion on a dilemma would take place within several meetings as it promoted continuous experimentation and reporting until the dilemma was resolved or the teacher was satisfied with the outcome of her action plans:

> Five sessions to see it through for one of the problem then strategies and then implementation and then found out that actually it works… It's like a cycle… like a cycle and it takes a few sessions to actually see it. (LE6, Interview, C 2)

As sharing was continuous, knowledge pertaining to shared instructional dilemmas accumulated. As this was the case, teachers continuously formed assumptions about the dilemmas and challenged them when they had new data. This process helped teachers understand the dilemmas better and improve their understanding of the processes and the factors within the classroom that had an impact on students' learning.

Furthermore, at times teachers shared similar issues, or discussed a single strategy in teaching in different sessions, and this increased the probability of teachers continuously reflecting on a single dilemma or on the use of a specific strategy in the classroom. For teachers like CA3, SA8, and ME2, continuous sharing on one specific dilemma and teaching strategy (i.e., inquiry-based teaching) led to continuous reflection and in some ways, helped them make changes to their practice and/or beliefs about students and their learning. Consequently, this led to some adjustments in their practice, such as in the way specific skills were taught and also the ways problematic students were handled within the classroom.

Most of the time, the protocol utilised had a positive impact on the processes identified within the TIC. The protocol, however, had one flaw: It did not address the

knowledge gaps that teachers had. The protocol used encouraged the sharing of knowledge-in-practice, practical knowledge that teachers built and stored pertaining to students, teaching, and learning. When teachers responded to the sharing on instructional dilemmas, they generally relied on their practical knowledge to support the discussions. At times, relying on teachers' practical knowledge to support discussions was found to be problematic, particularly when teachers had little knowledge about the issues discussed. For example, some of the information that teachers shared on problematic students or students with learning problems was found to be culturally biased. Teachers, for example, presumed that Halem's behaviour could be due to his cultural background, which teachers believed was biased towards women. None of the teachers could verify whether this information was true, but some teachers continued to build a case against Halem by relating his perplexing behaviour to his cultural background. Similarly, during the discussions on JO7's Omani students, some teachers identified that one of the reasons why these students were having problems in learning English was due to their 'laid-back' behaviour, which they believed was an attribute of their culture. This, too, was not verified. Fortunately, the assumption was challenged when JO7 interviewed her students and shared her students' accounts of their learning background in Oman with the TIC. The data from the interviews presented a more accurate version to explain the causes of the struggles of the Omani students in their learning of English. Both events show that there were gaps in teachers' knowledge about students and their learning, and these gaps were not addressed by the protocol.

Gaps that teachers had in the knowledge of the teaching of specific skill, for example, paraphrasing, and specific teaching strategies, for example, the inquiry-based teaching method and 'copywriting' were also obvious when external sources were brought into the TIC by community members. Teachers, including MI4, reported learning an abundance of new knowledge when they discussed the content of journal and web

articles. This shows that despite teachers' extensive discussions on some of the skills or strategies, there were still gaps in teachers' knowledge, and these gaps seemed to be bridged when external sources were brought into the TIC. Similarly, teachers would perhaps have a more accurate understanding of factors impacting students' learning of a new language if external readings or past research on the area were brought into the TIC. This did not occur, however, because the protocol employed did not promote the sharing of formal knowledge or knowledge-for-practice to support teacher learning. The sharing of external sources by CA3 and SA8, which introduced formal and researched knowledge on 'copywriting', inquiry-based teaching, and paraphrasing, was done out of their own initiative.

Practical knowledge generated by the TIC through its cycles of collective inquiry and collective was also found to have little benefit to an experienced teacher like MI4. MI4, who had 29 years of experience in teaching, felt that she did not learn much from the sharing as most of it was not new to her: "Be reminded, being told… like I said it's a refresher so nothing like new…" (Interview, C 3). Some of the teaching strategies discussed, for example, how to scaffold students' learning to write, which was new to the new teachers, was not new to her: "The strategies that have been discussed in the past few cycles, things that… okay we know about it, I have used them but it's good to know that they are being practiced" (Interview, C 3). MI4 only reported learning new knowledge about teaching when journal articles on paraphrasing were brought into the community. To her, "the theory part is a revelation" (Interview, C 3).

5.4.1.3 (b) Evidence of Practice

Another tool found within the community that influenced group processes was the evidence of practice or classroom artifacts shared. Teachers brought task prompts, samples of students' written work, their reflective notes, recorded interviews, and even

detailed descriptions of lessons to the meetings. These artifacts triggered deep discussion on instructional dilemmas; made the discussions on dilemmas focused; increased transparency of problems shared, which helped teachers understand the problems shared; and contained knowledge-*in* and *of*-practice that others could learn from.

First of all, evidence of practice shared prompted further discussion of a dilemma as it contained new information about it. When JO7 shared the recording of her interviews with her Omani students, new knowledge about her students' backgrounds emerged. This new discovery led to an in-depth discussion on students' learning backgrounds and their influence on students' learning of English in the IEP.

During discussions on Halem, two samples of Halem's writing were shared. One was a business letter and the other one was a general letter (describing a holiday to a friend). It was found that Halem's second letter to a friend was far better than the first one he produced (a business letter) in terms of grammar, vocabulary, structure, and format. New information found in the second piece of writing gave a new impression to the teachers that Halem's writing was not as bad as they had initially perceived. The new artefact shared also encouraged the formation of various assumptions to explain why Halem wrote better in the second letter as compared to the first one. In other words, the evidence of practice shared, particularly in follow-up discussions, triggered more in-depth discussions on the dilemma.

Evidence of practice or classroom artifacts shared also increased the transparency of the problems shared. It ensured that "all (teachers) can be on the same page" (JO7, Interview, C 1). It also made the discussion on dilemmas become more focused and realistic as it "gave the teachers a "snapshot…" of the problem shared, which aided understanding as "they got the idea of the depth of the problem" (AL1, Interview, C 1). When LE6 first shared her instructional dilemma, which was her problems in improving her Middle Eastern students' spelling of English words, her dilemma was not transparent

to the community. Description of her dilemma was vague and inadequate. She provided the community with only one example of the spelling mistake that her Middle Eastern students always made (spelling the word 'create' without the 'e'). This affected the discussion on her dilemma as it became generic, loose, and diverging. The discussion, in fact, became a casual conversation about teaching containing information that was not relevant to LE6's dilemma (i.e., Chinese students' pronunciation problems) and shifted to other disclosures that teachers' found interesting, i.e., JO7 sharing how she used a soft toy called Tonto to teach prepositions to lower-proficiency students. At one point, teachers appeared to be more interested in JO7's uses of Tonto in her classroom than in LE6's dilemma.

In a follow-up session of her dilemma, LE6 brought a sample of the writing of a Middle Eastern student from her classroom. The evidence of practice shared provided teachers with concrete examples of the mistakes that a Middle Eastern student made, and this made the discussion focused. Teachers became 'excited,' and they collectively analyzed, queried, and highlighted various spelling mistakes and patterns of spelling mistakes made by the student in his writing. While discussing the written work, teachers also highlighted the striking similarities in the spelling mistakes made by the student and their own Middle Eastern students. This comparison directed the discussion to first language interference as a possible cause for the spelling mistakes that Middle Eastern students made in their writing.

Furthermore, the evidence of practice shared gave teachers a real glimpse of the problem that LE6 faced in her teaching, which influenced the suggestions given as they became more realistic and relevant to her context. Besides the spelling mistakes made, it was discovered that the student also had other serious language problems in his writing. This finding directed the discussion to other issues relating to course content and objectives and constraints within the IEP which limited LE6's attempts to improve her

students' spelling. It also led to other important disclosures, particularly on language requirements of other university programs and possible consequences if the student whose written work was analyzed was to join a pre-university program like MUFY. The evidence of practice shared, in other words, gave more insights into LE6's dilemma, giving a new impression that her dilemma was more complex than initially perceived and would not be easily resolved. This influenced the suggestions given, making them smaller in scale and less ambitious, but 'matching' her current context:

> It is also difficult working within these constraints... you know it is good that you want it to be pointed out you know... every two or three weeks.... you know and I think that is the first step... creating awareness...in them…telling them that accuracy is important. (SA8, Wk. 5, C 1)

The sharing of evidence of practice made the discussions on dilemmas concrete and meaningful. It also highlighted other possible causes of teachers' dilemmas which could be teacher-related:

> If you bring evidence... because then we are able to see actually what the problem is you know for ourselves, is it just the question…comprehension or is it… you know whether the teacher's instruction not clear or things like that. (LE6, Interview, C 1)

NA10 identified her students' weak command of the English language as the root cause of her problem in teaching sentence construction. True enough, the samples of students' written sentences which she shared with the TIC revealed that her students' written work contained numerous problems in grammar, syntax, and vocabulary. To understand her context, teachers then queried about the types of teaching material she used in her classroom. Through NA10's disclosure, teachers found that the material she chose for her students was more suitable for intermediate level students and assumed that this could have contributed to the problem. The evidence of practice shared helped teachers gauge NA10's students' 'capabilities' in writing in English, which triggered inquiry into the types of material she used in her classroom. This led to the discovery that

the materials she chose could be too difficult for her students, and this could be one other possible cause of her dilemma. If samples of students' writing were not available for analysis, teachers would most probably base their discussion on what they could grasp from NA10's deliberation on her dilemma. The discussion triggered by it would thus be based on mere guesswork and teachers would not be able to identify the other possible cause to NA10's dilemma.

The evidence of practice shared did not only help in clarifying dilemmas, it was also a rich source of knowledge for teachers. It not only informed community members of the activities conducted in other teachers' classrooms, but it also provided valuable insights into the approaches teachers applied in their teaching of a specific language skill or component. Task or assignment prompts that teachers shared also reflected course or program objectives, information that was previously oblivious to other teachers that were in different programs. For example, when SA8 shared task prompts and samples of assignment questions she used in her 'Theme Study' class, teachers were partially shown the way she approached the teaching of 'Theme Study' and the various activities she conducted to improve her students' quality of written work. The evidence of practice shared also reflected the language skills required of her course. This was reported as new knowledge by the IEP teachers as the concrete examples of classroom activities shared by SA8 gave them an idea of what they were preparing their IEP students for.

When analysing the content of students' written work, teachers not only learn the kinds of activities conducted in other teachers' classrooms, but they also learnt the different mistakes or errors that students made in their writing. The analysis of LE6's Middle Eastern student's written work, for example, showed patterns in the spelling mistakes made, and these were reported as new knowledge by ME2 and SA8. Teachers also reported learning valuable information about students' past experiences in learning English and its possible effect on students' learning in the IEP when JO7 shared her

interviews with the Omani students. This information, which was previously obscure to all the teachers in the TIC, made teachers realized that there were many contextual factors that could impact students' success in learning a language, and one of them could be students' past learning experiences.

5.4.1.3 (c) Researcher-Generated Document: Qualitative (Open-ended) Questionnaire

One tool within the TIC which had an impact on teachers' individual processing of knowledge learnt was the qualitative (open-ended) questionnaire. It was designed to gather teachers' thoughts and opinions about the session, their learning experience within the community, and opinions about possible knowledge transfer. Teachers recorded new knowledge learnt, doubts or questions they had, and new understanding gained of their practice, dilemmas, issues, and teaching strategies discussed when they responded to the open-ended questions in the questionnaire. Teachers also recorded future teaching plans, for example, how they would respond to a student with a problematic behaviour or how they would approach the teaching of a specific language skill or component in their future classrooms, in the qualitative questionnaire. The questions in the questionnaire, in other words, triggered teachers' reflections on the sharing and also on their practice.

The questions in the qualitative questionnaire helped teachers process information or knowledge learnt from community sharing through the process of reflection. Through this process, teachers gained new understanding of various aspects of teaching and/or learning. For example, after taking part in a discussion on inquiry-based teaching and varied outcomes obtained when it was applied in different classrooms, ME2 deduced that there "are a lot of factors (that) need to be considered before it (the technique) can be applied in the classroom" (QQ, Wk. 6, C 2). After taking part in a session in which 'paraphrasing' activity was discussed extensively, MI4 reflected on the sharing and highlighted a new awareness: "Paraphrasing is not just replacing words with another

synonym; the meaning has to be maintained," which she realized was not something that she had emphasized when she taught her students how to paraphrase (QQ, Wk. 7, C 3). These examples showed that teachers deduced and drew conclusions from the sharing, actions achieved through reflection, triggered by the questions in the qualitative questionnaire.

Responding to the open-ended items in the questionnaire also helped the internalization of knowledge learnt through reflection, particularly when teachers linked the knowledge learnt to their practice. Through this reflective process, teachers became aware of flaws in their practice. After participating in the discussion on SA8's follow up disclosures on inquiry-based teaching, LE6 reflected on the sharing and recorded her thoughts on teachers' lack of emphasis on the process of learning, particularly on building the necessary skills needed to accomplish a certain task: "Teachers sometimes have high expectations of their students not knowing whether they have the necessary knowledge or skills" (QQ, Wk. 3, C 2). She then related this observation to her own teaching: "We assume that students can produce the kind of work that we want but we're not teaching them the process/skills of producing such work" (QQ, Wk. 3, C 2). The questions in the questionnaire prompted LE6 to connect the sharing within the community to her own practice, making her realize what was perhaps lacking in her own teaching.

In one particular session, teachers collectively explored the possible reasons why a certain teaching technique worked in some classes but failed in others. This triggered a discussion on different teaching styles, reasons why teachers employed a certain style in the teaching, and disclosures of experience with past teachers that they liked and disliked. After taking part in this session, NA10 reflected on the sharing and her thoughts about her approach in teaching and its impact on practice became clearer to her:

> But I think when it comes to their attitude I think I should do something about it. You know why because you were saying it's not me, it could ironically be me…because I believe in being empathetic you know because of my computer learning you know I am so *bodoh* (stupid) with so the computer so I become very

> empathetic you know about learning, teaching…but then again you can be overly empathetic. (QQ, Wk. 7. C 2)

Reflecting on the sharing helped NA10 realize that her present approach to teaching could be the root cause of why her students were too dependent on her. This made her reflect and reconsider her future practice, which was another level of processing promoted by the questions in the questionnaire:

> The 'fear factor' is very useful in class. We are referring to a healthy fear of the teacher. This helps to ensure students pay attention. We are not talking of a teacher who terrorizes her students and the result is that they are mentally paralyzed. Instead, the teacher is feared but students still find her very approachable, caring and helpful. It's about balance.
>
> We may find a particular strategy very effective for a particular group, but it doesn't work so well for another. So one style is not THE style; we must always be ready to adapt. (QQ, Wk. 7, C 2)

The qualitative questionnaire was found to be a tool that promoted individual processes, particularly teachers' reflections. Furthermore, recording them in the qualitative questionnaire, in a way, made teachers be responsible for action:

> The questionnaire is the guarantee that what we write we...the ideas that we enforce…and then it stays in our mind and that could be an impetus to making us put it into practice whereas what is said by word of mouth can be forgotten…blow with the wind… (MI4, Interview, C 1)

Like any other learning tools, however, the way the qualitative questionnaire was used had an impact on the outcome of teachers' participation within the TIC. This will be discussed further under 'Teachers' Actions.'

5.4.1.3 (d) External Sources

Another tool found within the community which had an impact on group processes was the external sources that teachers shared: Articles on 'copywriting' and paraphrasing (shared by CA3) and articles on inquiry-based methodology, and a mini-paraphrasing activity (shared by SA8). These external sources were brought into the TIC

out of the initiatives of the two teachers who wanted to share with other community members their readings on teaching strategies that interested them.

One of the external documents shared during the third cycle was a journal article on 'copywriting.' The document was a journal article on a language teacher's attempts to teach her EFL students' writing by asking them to copy sentences, verbatim, from a text (copying line by line). The first part of the discussion on the article focused on understanding the highlights in the journal article, the rationale behind the copywriting activity, the findings of the research, and the implications on teaching. Teachers then extended the discussion on the author's attempt with 'copywriting' to applications in their own classrooms. SA8, SU9, JO7, and ME2, for example, shared their ideas on how they could include the 'copywriting' activity in their own classrooms. This triggered a discussion on how to suit the 'copywriting' activity to different types of students (lower proficiency to intermediate level), the focus the activity should take (content or form), and the language area the activity should be conducted on (teaching of essay structure, teaching of business writing—letter or report writing, teaching of grammar). Questions were also raised over the suitability of the copywriting activity to the different language areas being focused on and on whether it was better to have done the copywriting activity in the form of dictation. Suggestions were also given to improve the different versions of copywriting activity teachers reported they would implement in their classrooms.

Because 'copywriting' was new and unknown by many within the community, past discussion was not as thorough and in depth as the discussion that transpired on the content of the journal article shared: "The session was definitely a success as the sharing of a research article generated so much of interest, ideas and feedback" (SA8, QQ, Wk. 4, C 3). Teachers reported learning new knowledge-for-practice from the discussion, for example, how the 'copywriting' activity could benefit both the students and the teachers, the various ways 'copywriting' could be adapted to suit different levels of students and

to teach different language skills and grammar items, and the possibility of merging 'copywriting' with another language teaching method, like dictation, to improve students' spelling, punctuation, and grammar. It also improved teachers' understanding of the 'copywriting' activity, most probably because new knowledge (derived from the article) was built on past knowledge that teachers had about it: "It is a way to learn more about the technique as research has been done before in this area" (CA3, QQ, Wk. 4, C 3). Teachers who were previously sceptical of the method also became more aware of the fact that the method was widely practiced: "To me, this concept of copywriting is still new, but based on the article on copywriting… apparently this has been practiced all over the world by many educators" (ME2, QQ, Wk. 4, C 3). This made teachers become motivated to extend the sharing to their own classrooms:

> I think the most interesting aspect was that when we are exposed to something new that is structured, it motivates us to try and use it in ways that can benefit our teaching. This is particularly true as the participants discussed how they can use copying in their classes. (ME2, QQ, Wk. 4, C 3)

Other external documents that were shared were journal and web articles on paraphrasing. SA8 shared an article on pre-paraphrasing mini lessons — an activity to be conducted prior to a lesson on paraphrasing. The article contains information such as problems faced by students when they paraphrase, the wrong assumptions that teachers form about paraphrasing, and the detailed steps of how to conduct the pre-paraphrasing activity to scaffold students' learning to paraphrase. CA3 brought two web articles on paraphrasing. One article explored the definition of paraphrasing, paraphrasing tips, and paraphrasing techniques. The other article presented a comparison between paraphrasing, summarising and quoting, various definitions on paraphrasing, and ways to paraphrase.

New information extracted from the articles shared by SA8 and CA3 supported the discussion on NA10's paraphrasing activity. Teachers discussed ways to improve the paraphrasing activity designed by NA10, suggesting the inclusion of substitution cues or

teaching paraphrasing indirectly, ideas which were introduced in the articles. They also generated a lot of discussions on how paraphrasing tests were graded, which led to more disclosures on how these were graded in different language programs. Discussion was also carried out to understand the differences between paraphrasing, retelling, recapitulating, and summarizing.

The documents also extended the discussion on paraphrasing as they provided examples and suggestions on how paraphrasing could be taught. They also raised important issues like the complexity of the teaching of paraphrasing, the wrong assumptions that teachers had about the teaching of paraphrasing, and the importance of scaffolding paraphrasing activities. Teachers reported that they learned new knowledge about paraphrasing and gained a more holistic understanding of the teaching of paraphrasing:

> There is no point to just show students "acceptable" paraphrase and expect them to learn on their own, rather instructor has to guide them at every point in teaching paraphrasing. CA3, QQ, Wk. 7, C 3)
>
> Paraphrasing is not just replacing words with another synonym; the meaning has to be maintained. If the word used is a direct synonym but meaning of the sentence is affected, then the paraphrasing has failed to meet its purpose. (MI4, QQ, Wk. 7, C 3)
>
> For paraphrasing, both "meaning and accuracy are important. (SA8, QQ, Wk. 7, C 3)

Even an experienced teacher like MI4 felt that the sharing helped her tremendously as she was exposed to documented information about paraphrasing, particularly students' thought processes when they paraphrased texts.

The other set of external documents brought into the community was on inquiry-based teaching, which was shared by SA8. Important knowledge-for-practice found in the articles were highlighted and discussed thoroughly by the community members, for example, 1) the different types of inquiry-based learning (structured inquiry/open inquiry/guided inquiry), 2) the three important qualifiers about the nature of inquiry

(scaffolding, emphasis on learning, and reinforcement), 3) how it could be suitable for teaching different levels of students (which contradicted the beliefs of some teachers that a certain method was only suitable for proficient learners), and 4) how grammar could be taught using the method. This sharing enhanced teachers' understanding of the method. SA8, for example, was able to match the versions of inquiry-based methods implemented within her own classrooms to the ones highlighted in the article:

> When I did this in my class, at first it was structured inquiry and then…and then they become guided but then they didn't get it until they came out with their own questions which was actually open inquiry. (SA8, Wk. 5, C 3)

They also validated teachers' practice: "SA8's articles on inquiry based learning provides a valid and powerful knowledge affirming some of the strategies used in our classroom are acceptable practice for student-centred learning" (JO7, Wk. 5, C 3).

The documents shared on inquiry-based teaching also made the discussion on the method more complex and in-depth. It triggered the discussion of complex issues, for example, the suitability of different types of inquiry-based method to the different levels of students and when teaching different language components and skills. Teachers for example drew comparison of how questions were used to support learning in SA8 and CA3's classrooms and highlighted the differences in terms of effectiveness due to the differences in components or skills taught, the types of students within the classroom, and students' motivation in learning. The discussion also substantiated the discussion on NA10's problem in her use of questions in her classroom to elicit students' knowledge and in motivating her students to ask questions. This triggered the sharing of classroom experiences and possible reasons why questioning was successfully done in some classrooms (both teacher and students were actively asking and answering questions) and why, in some classrooms, students did not even ask questions. Teachers also highlighted important elements which influenced the success rate of the use of inquiry-based tasks in the classrooms, for example: 1) The right classroom environment (students should feel

that it is fine to ask questions); 2) strategies to encourage students to ask questions, for example, by instilling the element of fear (if they do not ask questions, they will be asked); and 3) the different elements within a classroom that would hinder such an approach (proficiency level, time constraint). The discussion on the method, which was triggered by the journal article shared, also provided examples of classroom situations in which inquiry-based methodology worked well, did not work well, was naturally occurring, and was not appropriate, giving teachers new ideas on how they could implement it in their own classrooms.

The inclusion of external sources into teachers' discussions generally had a positive impact on group generation and processing. They extended and substantiated teachers' discussions on teaching strategies ('copywriting' and inquiry-based teaching) and the teaching of a specific skill, i.e., paraphrasing. This improved teachers' understanding and motivated teachers to extend what they had learnt to their classrooms.

5.4.1.4 Instructional Dilemmas

The other factor within the community that had an impact on TIC processes was the instructional dilemmas. The instructional dilemmas shared varied in terms of their transparency and frequency. To a certain extent, they influenced the interactions taking place on dilemmas, thus impacting collective knowledge generation and processing. The frequency of teachers' sharing of dilemmas of similar nature, i.e., problematic students or students with learning difficulties, also impacted teachers' individual processes of knowledge learnt.

Instructional dilemmas shared varied in clarity and it was found that dilemmas that were transparent to others triggered a more specific and focused discussion on them. Dilemmas that were vague or lacked details, on the other hand, resulted in discussions that were superficial. When SA8 shared a problem she faced in her 'Theme Study'

classroom in improving the criticality of her students' responses to the questions given, she not only provide detailed descriptions of her practice, but she also shared the prompt for a writing activity in her classroom, and marked students' answers. During the probing stage, SA8 continued to give details about her dilemma when she provided examples of activities she conducted in her classroom which failed to achieve the outcome she wanted. The discussion carried out on SA8's dilemma did not contain irrelevant information as it was all focused on understanding it and finding solutions to it. Similarly, during the discussion on Karim, due to its specificity and the details provided, the discussion carried out was only focused on the problem shared. This was also observed during the discussion on CA3's dilemma when she reported different outcomes achieved when she applied inquiry-based teaching to two different classrooms. This shows that the transparency of the dilemmas, to a certain extent, influenced teacher interactions as it made the discussions focus only on the dilemmas.

When a dilemma shared was vague or unclear, it was observed that the discussion on it lacked depth and focus and contained information that was irrelevant to the dilemma. An example of a dilemma that lacked transparency was the one shared by LE6:

> We've got EFL (English as Foreign Language) students... especially... the Iranians... they are not really second language learners... they are foreign language learners... so they come in and you know and the first... the first skill they would pick up is usually speaking because they are very...outspoken, they are very confident.. so they would … They would speak very well but... their writing suffers…usually they would have problems with spelling and they don't have time to actually dwell on this. (LE6, Wk. 4, C 1)

When she first disclosed her problems in improving her students' spelling of English words, LE6 provided little information about her dilemma, relating only one example of the spelling error that her Middle Eastern students made. As a result, the discussion on it lacked depth, and it spilled over into general aspects of teaching covering irrelevant information, i.e., the pronunciation problems of Chinese students and the use of the puppet to teach English prepositions. The superficial discussion on her dilemma

also impacted the suggestions given as they were found to be lacking in substance and were simply common sense. To help her solve her dilemma, teachers suggested that LE6 1) give her students spelling quizzes, 2) provide students with words to be memorized, 3) give them crossword puzzles, 4) give students rewards (when they get their spelling right), 5) Give students "a little bit more reinforcement" (SA8, Wk. 4, C 1), 6) encourage students to proof-read and edit their work prior to submission, and 7) list down difficult words that students need to learn. LE6's instructional dilemma only became clear when she shared a sample of her student's written work with the community. The increase in the transparency of her dilemma led to a more focused discussion on it. This consequently resulted in the sharing of more relevant suggestions, which took into consideration the extent of the problem and the constraints she faced within the IEP.

Another problem shared which was lacking in clarity was the problem disclosed by CA3 about her dyslexic student. CA3 reported a problem she faced in making decisions about the student in class, for example, on whether the student should be given more time to complete a listening test because of her disability. CA3 was also not sure of how her student's written work should be marked. Other than this, because of issues of confidentiality, CA3 did not provide any other information, for example, the problems that the student encountered in her classroom or the effects of dyslexia on the quality of her student's work. As the problem was unclear, the discussion on it was very limited and lacked depth. None of the teachers reported that they benefitted from the discussion on this dilemma.

A discussion on a dilemma could also become limited when teachers presented the problem together with a strategy that they had devised to overcome their instructional problem. When this happened, community members were found to be focusing less on understanding the problem but more on refining the designed task. This was observed during JO7's sharing. To improve her students' writing, JO7 shared an activity that she

had implemented in her classroom to improve her students' sentence constructions. She selected ten badly constructed sentences and asked her students to "spot out the mistakes" (Wk. 5, C 2). She also asked the students to select two of the sentences and make corrections. JO7 stated that the objective of the activity was to make her students be "aware of the mistakes by helping them to zero onto the mistakes" (Wk. 5, C 2). Presenting an instructional dilemma together with an implemented solution influenced the discussion carried out on JO7's disclosure as there was not much inquiry carried out to understand the problems her students faced when constructing sentences. As a result, the discussion on JO7's disclosure became loosely structured. This allowed strands of conversation that did not generally contribute to the discussion to seep into it: for example, the financial capability of the Omani students, whether they were scholarship holders, the entry requirements for local and international students to join a pre-university program like MUFY, and HE5's Degree students' writing problems in her Business English class.

A similar pattern of interactions was also identified during the discussion on NA10's intervention plans to improve her teaching of sentence construction and paraphrasing. Unlike JO7, the intervention plans introduced by NA10 were never tested. NA10 requested help from the TIC to improve and endorse the activities she had designed, which she planned to carry out in the coming semester. Because they were not the outcome of teaching, the discussions on the two 'dilemmas' were only focused on 'smoothing out the rough edges' or refining the activities/tasks shared.

Sometimes, a dilemma remained a mystery even after a lot of information was shared about it. ME2's first disclosure of her dilemma (i.e., Halem) was quite transparent as she provided detailed description of Halem's behaviour and her communication with her, the activities that she had conducted in her classroom which Halem failed to complete successfully, and also a sample of Halem's business writing. Despite the abundance of

information about Halem, teachers could not explain why Halem appeared to have such high confidence with his ability in the English language when his written work was poor, and he could barely understand instructions given. The 'intriguing' aspect of the dilemma benefitted the discussion as teachers explored and formed various assumptions in their attempts to understand Halem's perplexing behaviour. As a result, many teachers reported gaining new understanding on the possible causes of students' problematic behaviour. The mysterious nature of the problem, according to SA8 "generates a lot of a discussion, feedback and probably that is one of the value of the (community) because you don't know and that's why we are sitting together here….to enquire" (Interview, C 2).

There were times when dilemmas of similar nature, i.e., problematic students, were frequently raised and continuously discussed within the community. The frequency of similar dilemmas raised had an impact on individual teachers' processing of knowledge learnt. When teachers took part in discussions that explored a similar issue, they continuously attempted to understand various factors that caused it. As a result, they continuously reflected on the sharing and questioned their set assumptions and beliefs. Continuous exposure and discussion on problematic students and students with learning difficulties in some ways helped ME2 reflect on and question her own perceptions of such students. This resulted in some modification to the way she dealt with a problematic student in her classroom.

Repetitive discussion on a dilemma benefitted some teachers. However, it was found that too much discussion on a single issue or dilemma could have a negative impact on teachers' motivation, particularly if they found the sharing irrelevant to their practice. HE5, for example, felt that the community spent too much time discussing 'copywriting':

> We spent too much time but of course I look at all the members, they are so enthusiastic to talk about it (copywriting) so of course I also participated, I don't want to you know like burst people's bubble you know because they may… to them it's relevant you see…so I try to be supportive, so… but to me personally emmm… (Interview, C 3)

She found the discussion on 'copywriting' "restrictive and… not fluid anymore." She suggested that "after few sessions move on to new ideas or move on to new problems, dilemmas, instead of focusing on one" (Interview, C 3). She rationalized that the discussion should move to another issue or problem because "people may feel that it's not suitable to them…because not everybody shares the same belief or the same ideas" (Interview, C 3). Despite this, HE5 continued participating in the sessions on 'copywriting' because "this is a community you can't just like say "Hey! Let's move on!" (Interview, C 3).

Unlike HE5, who found such sharing irrelevant and a waste of time, teachers who were teaching lower-proficiency learners like JO7 and SU9 were very appreciative of the discussions on 'copywriting.' They, however, could not relate to some of the sharing that they perceived irrelevant as it was more suitable for the teaching of students with higher proficiency. JO7, for example, was unable to relate to the discussions on the teaching of argumentative essays or on improving students' critical thinking. SA8, HE5, AL1, and CA3, however, found such discussions relevant as they were teaching argumentative essays and more proficient language learners. When teachers found a certain sharing irrelevant to their practice, they often chose not to process it further. This became problematic when an issue or an instructional problem which was perceived as irrelevant was repetitively discussed within the community.

Community setup, community members, tools, and instructional dilemmas were contextual factors that influenced both individual and group processes within the TIC. Other factors which impacted these processes existed within the context of the individual teachers. These factors influenced teachers' involvement during discussions on instructional dilemmas and individual processing of knowledge emerging from the sharing.

5.4.2 Individual Context

Factors within individual context that influenced the processes identified within the TIC were beliefs, attitudes towards learning and change, biological factors and external circumstances, teaching experiences, confidence levels, learning experiences, and reflective skills (View Figure 5.3 for factors within individual context which influenced processes within the TIC).

5.4.2.1 Teacher Beliefs

The main factor that impacted teachers' individual processing of knowledge learnt was teacher beliefs. Teachers' perceptions on what was relevant, feasible or practical was found to be closely linked to their beliefs about teaching and learning. When teachers considered a piece of knowledge relevant to their practice, they would process it further by internalizing it through reflection and/or experimentation in practice. However, this process would not take place if they believed that it was not suitable, practical, or relevant to their practice. This notion of teacher beliefs and their effect on knowledge selection was clearly described by ME2 when selecting strategies that she would employ within her classroom to resolve her dilemma:

> Normally when we discuss how to solve certain problems I would choose the one (suggestion) that I think would be most suitable for that particular problem and whether that can be applied to that particular group for that particular class for that particular student. You could have like three or four really good suggestions but not all four suggestions you can apply to your problem (Interview, C 1).

It was also observed that even though teachers might consider a certain sharing as new knowledge, it would not be processed further or transferred to practice if they felt that it was irrelevant or impractical. One specific example was when JO7 introduced a turtle puppet she called 'Tonto' to teach English to lower-proficiency students. Even though 'Tonto' was described as "interesting" by many participants, it was not processed further by the teachers:

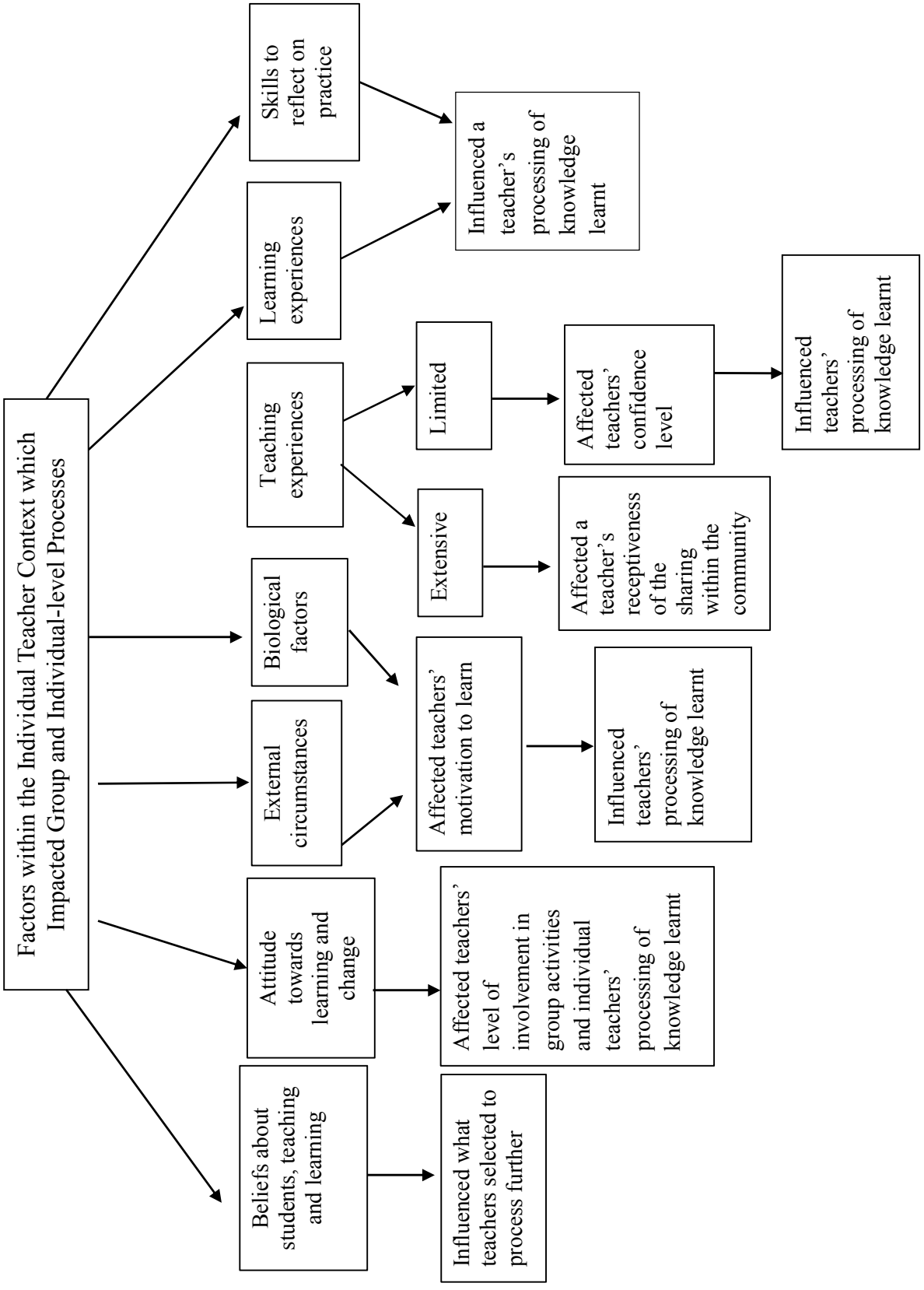

Figure 5.3: Factors within the Individual Teachers which Impacted Group and Individual-level Processes

> As much as I admire 'Tonto', I don't think I can use 'Tonto' in my class because my students somehow, some Diploma students especially School of Business students, they might find that as childish and you know their attitude is slightly different. (ME2, Interview, C 3)

Sometimes, teacher beliefs about the capability of their students also influenced the knowledge that they would process further. A teacher would not apply a new teaching strategy learnt if they thought that the strategy would require a skill or a language capability beyond what they believed their students were capable of: "Can these students comment on their own friends? They are at this level and then all of them are quite young and sort of immature" (HE5, Interview, C 2). Similarly, AL1 did not process knowledge or sharing that she considered unsuitable for her Degree students, who were generally at the intermediate level, as she perceived that they should be treated differently from lower-proficiency learners:

> The community and the teachers took part in IC community mostly... most of it were IEP-level related … so I couldn't relate (them) directly to my students because they are Degree level and the kind of syllabus and the content are different because we are not teaching…you know we don't sit with them, we don't have the individual attention with them. (Interview, C 2)

Not only teacher beliefs on what were feasible, practical, and suitable to their practice influenced what they chose to process, but a teacher's strong beliefs about a specific strategy, technique or approach which she considered as ineffective could also impact her processing of knowledge learnt. Despite some positive sharing on 'copywriting,' MI4 did not process any sharing on 'copywriting' further because of her negative perception of it: "I consider it as rote learning and is suitable for primary school children" (QQ, Wk. 4, C 3). She also considered the activity worthless:

> Copy-writing yes… I have understood the principle behind it but I don't know if I will use it because copying to me is…that's my belief. That's my belief because I have seen my nieces in Chinese school… copying… copying… copying… non-stop and I find it quite worthless for me. They will copy paragraphs of Bahasa Malaysia '*karangan*' (essay) from the text book onto paper. Why?! (Interview, C 3)

Teacher beliefs on the best approach in teaching could also prevent knowledge learnt from the sharing within the community to be processed further. SU9, for example, reported that "my old beliefs of teacher…teacher-centred learning…unless I teach and stand there and teach…teach…teach…" Doing otherwise, made her feel that she was not 'teaching' (Interview, C 3). As SU9 had a limited teacher training background, she relied on an old belief that she had about teaching. Even though she reported that there had been small changes to her teaching — "So I did try for essay writing, group work and getting them to come up with their own idea" (Interview, C 3) — she was quite reluctant to make any other adjustment to her teacher-centred approach as it did not conform to her beliefs about teaching.

At times, having a better understanding of one's dilemma did not necessarily result in changes to practice because of a strong belief that one held. NA10, after a discussion on her dilemma, realized that the materials that she used could be too difficult for her students:

> That I have to realistic. Really acknowledge that they are very weak and even though I have to bring up their competency level within one semester, I have to start with more manageable texts. For example, instead of starting with the Intermediate text for "Market Leader", I should start with the Elementary or Lower Intermediate texts. (QQ, Wk. 4, C 1)

Despite this, NA10 continued using intermediate-level material to teach elementary students, and this decision was to some extent influenced by her belief that doing so would lower the 'standard' of the Enrichment Program and would not help her students' transition to the degree program:

> Because standard (is) there to be maintained, I cannot lower the requirement of the course because you know it's not going to help the students… standard cannot be lowered for their own good even in the name of business you can't. (Interview, C 3)

This was despite NA10 having full control of the design of the course. Because of this, NA10 did not experiment with 'easier' materials within her classrooms.

5.4.2.2 Attitudes towards Learning and Change

Another factor that influenced teachers' processing of knowledge learnt was teachers' attitudes toward learning and improving practice. When teachers displayed more open and positive attitudes toward learning and improving practice, they were found to be more involved in the processes within the TIC and vice versa.

Some teachers were found to be more actively involved in both group- and individual-level processes than others. These teachers consistently took part in the sessions, shared problems in their practice, and gave ideas to help others with their dilemmas. They also put in a lot of effort to implement suggested action plans, collect evidence, and data and report to the teacher community the outcomes of their experiments with suggested strategies. Not only that, they also processed the sharing or newly learnt knowledge by reflecting on it, which was evident in the responses that they gave in the qualitative questionnaires. In some cases they devised teaching plans for future classes. Some teachers even took the extra effort of sharing articles they read about the teaching strategies discussed within the community with other teachers. SA8 and CA3 were the examples of such teachers. SA8 had a persistent, never-give-up attitude towards improving her practice:

> I think I have always been open… Personally I am that kind of person... the kind of person who wants to improve, I think the part before was I would try new things but I wouldn't dare tell it to people…That's why I even tried the inquiry base thing like what can I do to help the students? Interview, C 3)

Throughout her participation within the community, she shared more than one instructional problem. She repeatedly exposed her practice for others to scrutinize. She was also very much involved in the individual-level processes as she continuously reflected on and experimented with different teaching strategies she learnt from the community. When she reported the outcome of her action plans, SA8 continued to reflect on the feedback received from others. She also continuously adapted the teaching strategy

(inquiry-based teaching) to suit different students and to fulfil different lesson objectives. Even after the community was resolved, SA8 continued researching the method.

Like SA8, CA3 also had a positive attitude towards learning. To CA3, "When it comes to teaching and learning, it's a lifelong …you know practice and I mean improvement that you have to think about…it cannot be stagnant" (Interview, C 3). She also displayed a high level of enthusiasm in experimenting on her practice:

> When you learn something new and then you want to experiment it in your class and… I mean it doesn't work in every class but if it works, you are very happy, like what happened in my Psychology class...inquiry base… this paraphrasing and copywriting, things like that, I have to try. (Interview, C 3)

CA3 experimented with inquiry-based teaching that was suggested to SA8, in her own classrooms. After experimenting with inquiry-based tasks in her academic writing classrooms, she diligently recorded the outcome and shared it with the community. CA3 even took the initiative to read materials on teaching strategies learnt from the teacher community that she found interesting and shared her findings with the community. She admitted that she "like(s) to try out new things" (Interview C 3). Her high level of involvement in the processes within the TIC led to some concrete adjustments to her practice, particularly to her approach in teaching academic writing.

Some teachers within the community showed positive and supportive attitudes towards group members and knowledge sharing. They were active contributors of knowledge, ideas and opinions during discussions of other teachers' dilemmas. However, they only superficially processed knowledge emerging from discussions on dilemmas. Such teachers reported making new discoveries about or experiencing an increase in awareness on certain aspects of teaching or learning. However, their participation did not have any meaningful impact on them and their practice. AL1, MI4, and HE5 were such teachers.

AL1 was found to be supportive of others' learning but not her own. She was an active participant during discussions on dilemmas, and she always shared her thoughts and opinions and gave thoughtful suggestions to help other teachers solve their problems in practice. When it came to her own learning, however, AL1 did not reflect the same level of enthusiasm. She never shared a single instructional problem, and her reflections were often shallow. She often responded to the questions in the qualitative questionnaire with one-sentence statements or a one-word answers. Most of the time, she listed what she had learnt from a session, but she rarely made any connections between what she had learnt and her practice. Furthermore, she did not experiment with any of the strategies learnt, even though she reported learning some new strategies she perceived as useful: "I had not implemented it in the classroom yet… I haven't started reflecting (on) them yet…" (Interview, C 3). This was despite her low teaching hours in all the three cycles. At the end of the third cycle, AL1 reported learning new teaching strategies from the sharing. She also reported understanding that there were multiple causes that could affect students' learning. Furthermore, she also shared that she had more empathy for her students:

> Also from the student's view... like putting yourself in their shoes, try to understand them you know not completely but to pay attention to them a bit in terms of where they are coming from, so I think that will help me to… to help them better. (Interview, C 3)

Despite this, AL1 did not report any concrete adjustment to her practice. Her limited processing of knowledge learnt resulted in limited internalization or superficial learning. Furthermore, since AL1 did not share any dilemma, she missed the chance for her practice to be scrutinized and examined by others. As a result, her practice was not affected by her participation within the community. Like AL1, MI4 and HE5 also appeared to be passive learners. They were both active contributors during group discussions, but none reported

experimenting with any of the strategies learnt through community sharing, despite their low teaching hours.

Teachers' attitudes towards learning and change was found to be influenced by many factors. For teachers like CA3 and SA8, their positive attitudes towards their own learning reflected the strong inner drive of wanting to improve themselves and their practice. For some teachers, however, their attitudes towards learning and change was found to be impacted by various factors, for example, external circumstances, biological factors, and past teaching experiences.

5.4.2.3 Biological Factors and External Circumstances

AL1 and HE5's biological factors and/or external circumstances impacted their motivation to learn, which resulted in their superficial processing of knowledge learnt. In AL1's case, one of the possible causes of her lack of in-depth processing of knowledge learnt could be due to her biological factors and circumstances. In the beginning of the second cycle, AL1 was involved in a road accident and was absent from the TIC meetings for five consecutive weeks. The accident, and being away from the community for a long period of time, to a certain extent, impacted AL1's motivation to learn. Even though AL1 was an active participant during group discussions when she re-joined the community, she appeared a bit detached from the group members. In fact, in the beginning of the third cycle, AL1 contemplated leaving the group but changed her mind and decided to stay on. To a certain extent, it is believed that AL1's biological factors and circumstances affected her motivation to learn, which influenced her attitude towards learning and change. This resulted in her superficial processing of the knowledge that she learnt from the TIC.

HE5's attitude towards her own learning was also influenced by her biological factors and external circumstances. Two weeks after HE5 joined the community, she reported that she was pregnant. The first trimester of NA10's pregnancy coincided with the first cycle of the TIC. According to HE5, her "condition" had affected her motivation

and her participation within the community as she often felt tired and was not in the mood to try out new things in her classroom (Interview, C 3).

Another factor which impacted her involvement in the TIC was external matters. HE5 was not able to attend five meetings in the beginning of the second cycle because she had to take leave every Friday due to a family-related matter. Her "condition" and the family-related matter which required her attention, to a certain extent, influenced her attitude towards learning as it affected her motivation to process knowledge learnt through experimentation on practice. Furthermore, in the third cycle, because HE5 had just returned from her maternity leave, she was not given any classes to teach. As a result, she could not test new ideas learnt through community sharing, even if she wanted to. This, in a way, also affected her learning within the community.

In MI4's case, her low processing of knowledge learnt, particularly through experimentation on practice, could be attributed to her extensive teaching experience, which affected her attitude towards the sharing within the community and her learning. This is explained in the following section.

5.4.2.4 Teaching Experiences

Of all the teachers within the TIC, MI4 had the most experience in teaching. She had been teaching for 29 years prior to her participation in the TIC. 20 years of it was as a teacher trainer in a teacher training institute in Seychelles. Even though MI4 was active in group discussions and often shared her opinions and her suggestions on various issues or dilemmas raised, she seemed to be passive when it came to her own individual learning. MI4 appeared to be unwilling to reconsider her practice and adopted a 'been there, done that' attitude to most of the sharing within the community. This was most probably due to her extensive experience in teaching. During the progress of her career, MI4 had built a range of skills and developed her own 'bag of tricks' to manage her teaching. As a

result, she often had instant 'remedies' and explanations for other teachers' problems. During the discussion on LE6's dilemma, for example, MI4 did not probe further to understand it but was quick to suggest "spelling quizzes in the classroom" (Wk. 4, C 1). Even after she was prompted to ask questions to understand the dilemma, MI4 continued to give suggestions to LE6:

> This is very traditional... do you have... give them spelling session... go and memorize... and come back and quiz them... another ten words... so you are slowly building up their ability... whatever they can (with) cope each time... they memorise and they can apply... (Wk. 4, C 1)

In a follow-up session, LE6 disclosed that one of her Middle Eastern students' spelling became worse after the spelling test. MI4 was quick to suggest that the student should be "sent for counselling" (Week 6, C 1). Similarly, during ME2's disclosure of Halem, she was quick to suggest that Halem should be referred to a counsellor. Her automatic responses gave the impression that she had 'readily prepared answers' or solutions for different types of instructional problems. This observation was verified by MI4 who explained that she was used to "thinking on the spot" and resorting to "those things that I have…" (Interview, C 3). This perhaps made MI4 less receptive to the sharing and reduced her flexibility towards change. Consequently, she did not gain much from her participation in the TIC, despite perceiving learning within it as "conducive":

> Our timetable is a...very conducive, in fact because every Friday when we meet we are always free around that time, so in terms of you know… hindrances in the organization and then in the classroom we have the liberty to try… It's up to us to try it out. (Interview, C 3)

Teachers, like ME2 and SU9, who had been teaching for two years and five years, respectively, also displayed low levels of flexibility towards making changes to their practice. This was found to be due to their low levels of confidence, most probably because they were relatively new at teaching.

5.4.2.5 Confidence Level

For some new teachers, making changes to their practice was a difficult and frightening experience. This could be attributed to their limited experience in teaching, which affected their confidence in trying new strategies within their classrooms. SU9 was one such teacher. Even though she had been teaching for five years before joining the community, teaching was relatively a new profession for her. She only started teaching in her 50s after retiring from her management post with Pos Malaysia. Being new at teaching, SU9 reported having low confidence in making adjustments to her practice. In fact, she tried her best to stay within the 'path' that was set by the coordinators of the proficiency course that she was teaching. She was also worried that she would receive negative feedback from her students if she tried something new in her classroom: "Don't want the students to complaints... that teacher did that, that teacher did that, this teacher didn't do that" (Interview, C 3). Even though she believed that some of the strategies she learnt could benefit her students, she reported not being able to "really try anything in a bigger scale" (Interview, C 3) and attributed this to her low level of confidence:

> Yes…This is my only disappointment…Maybe I can, maybe I am not confident enough, probably I can, I should be able to but hopefully I can. I keep telling myself I must do something you know, I mean just take copy-writing for example, maybe I can… if I can just do it with a few more students, see the impact over the ten weeks… it will help. (Interview, C 3)

Similarly, ME2's limited experience in teaching had an impact on her confidence level. She recalled feeling anxious about sharing her ideas during discussions due to her minimal experience in teaching:

> Okay do I want to suggest this or would I sound stupid? Sometimes once in a while I do but I know even if I say something… if it's wrong, they will… maybe...correct me or something but it's just that sometimes you feel that all the ideas that came from them it's like, 'Oh my God…Oh my God…it's so great', so I do feel that sometimes… they have better experience and their suggestions are better than mine, I think it comes from ... the feeling that... I mean the knowledge that I don't have that much teaching experience and I just started a few years ago, I think it's that. (ME2, Interview, C 3)

Being a new teacher, ME2 was anxious to share her thoughts with other community members. She was also anxious about making modifications to her practice, which stunted her exploration of new strategies learnt: "I was still a bit scared…about changing" (Interview, C 2). Even at the end of the third cycle, ME2's feelings of anxiety persisted:

> Yes… I am too scared to try out new things because as I said maybe because I am new so I am scared that I might do the wrong thing and then I might be blamed, I really don't mind being blamed but I might feel that okay it's because of this new teaching techniques that I try, because of that, my students fail, I am just so scared so I followed the book all the time which can be a bit boring compared to the other techniques, the other lecturers have used in class so… interesting. (Interview, C 3)

Because of her low level of confidence, ME2 became a low risk taker. Even though she did make some adjustment to the way she handled a problematic student and she reported trying 'copywriting' within her classroom, she only changed some small aspects of her practice and not much.

Some teachers, however, had high levels of confidence and were risk-takers. They were not afraid to disclose their problems and shared their struggles in teaching. They were also not afraid to experiment with new ideas and make modifications to their practice. SA8 and CA3 were such teachers. SA8, for example, was the first to disclose her instructional dilemma, and she continuously shared her practice for others to examine. Even when her dilemma was 'solved,' SA8 continued to devise an extended inquiry-based teaching activities to improve her students' quality of written work. She also continuously gave detailed deliberations on the outcome of the newly devised activities. Not only that, when SA8 was transferred to UCSU, she also attempted an adapted version of the 'copywriting' activity in her Business English classroom. SA8 consistently wanted to improve her practice by testing out new ideas suggested to her and others. She reported that she "would try new things…" to improve her students' learning (Interview, C 3).

CA3 also displayed similar characteristics. She was confident about changing her practice and she was also open about sharing her problems with other community

members. CA3 was also open to suggestions and attempted the strategies suggested to her and also shared by others in her own classrooms. She adopted the suggestions given by the community members to solve the problems she faced with a disruptive student, Karim, and she tried and adapted an inquiry-based task for the teaching of academic writing. As a result, both CA3 and SA8 reported gaining new insights about their practice and made more meaningful adjustments to it compared to others within the TIC.

Not all new teachers' individual learning was affected by low levels of confidence because of their lack of teaching experience. HE5, AL1, and JO7, despite being new English teachers, did not disclose any feelings of anxiety in trying new strategies in their classrooms. In other words, lack of confidence due to limited teaching experience was not reported to be a factor which affected their individual learning. These teachers' individual learning, however, was found to be affected by other factors, i.e., relevance of discussions within the TIC, external circumstances, biological factors, and workplace-related constraints.

5.4.2.6 Learning Experiences

A teacher's individual processing of knowledge learnt could also be influenced by her learning experiences, as in the case of NA10. NA10 was an empathetic teacher. Her empathy seemed to emerge from her own insecurity and fear of learning to use the computer. NA10 learnt to use a computer quite late in her life, and at 65, she was still struggling with her use of computers. As a 'student' learning to use the computer, she perceived herself as slow and inefficient. Her experience of learning to use the computer, made her very empathetic towards her students' learning. As a result, NA10 provided close guidance to her students and approached teaching in a motherly way. Through discussions within the TIC, NA10 came to realize that her motherly approach to teaching made her students too dependent on her. Despite this, NA10 did not report any changes

to her overly empathetic ways when dealing with her students. Because of her past experiences of learning to use the computer, being empathetic had become second nature to NA10, and thus it would require more time for her to change her approach to teaching.

The next section discusses factors that impacted teacher learning within the community which existed within the context of teachers' workplaces, particularly the language program that teachers were part of.

5.4.2.7 Skills to Reflect on Practice

One of the other possible factors which influenced a teacher's individual processes of knowledge learnt was skills to reflect on practice. It was observed that teachers reflected at varying depth and this was dependent on the sharing within the community. One teacher, AL1, in particular, however, was found to be reflecting superficially to nearly most of the sharing within the community. Her contribution to group discussions showed that she was serious and supportive of the activities taking place within the community. However, she often responded to the questions in the qualitative questionnaire with either one-sentence statements or one-word answers. This was observed even in her responses to the sharing in the first cycle. One reason why this happened was perhaps because AL1 lacked skills to reflect. Her short, superficial answers seemed to show that she was unable to reflect on and relate the knowledge emerging from community sharing to her practice.

The next part of this chapter describes factors within participants' workplace context which affected individual-level processes.

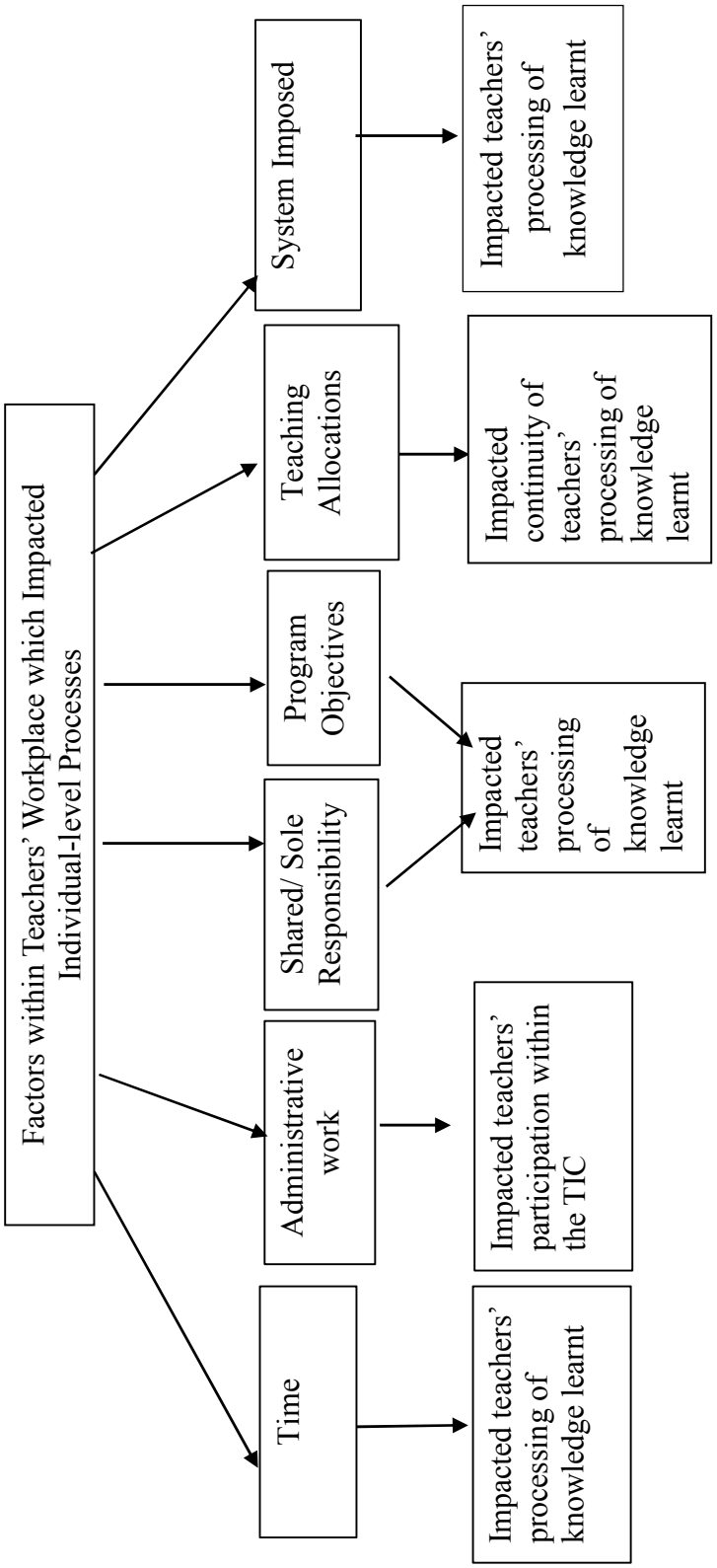

Figure 5.4: Factors within Teachers Workplace which Impacted Individual-level Processes

5.4.3 Workplace Context

Workplace factors, like time, administrative work, shared/sole responsibilities, program objectives, classroom allocation, and imposed systems affected teachers' individual processing of knowledge learnt through community sharing (View Figure 5.4 for factors within teachers' workplace which impacted individual-level processes).

5.4.3.1 Time

Many teachers complained that time was the biggest constraint which hindered their learning within the TIC. For the IEP teachers, particularly, inadequate time was often a major hindrance. Often, teachers reported learning valuable knowledge from the community, for example, new teaching strategies, but due to time constraints, they could not test them out in their classrooms.

The standard teaching hours for the IEP teachers was 18 to 20 hours per week for ten weeks per semester. They were also required to slot consultation time with their students outside of their teaching time. This demanding aspect of their work made it challenging for the IEP teachers to explore new ideas in their classrooms. If they considered experimenting with selected strategies, they would do it on a very small scale. For example, LE6 used only 30 minutes of her class time to address her students' spelling problems. She found it challenging to experiment with other strategies, also, because of the short duration of her course: "The course runs for 10 weeks only so for us to actually conduct the strategies and then find out whether it works or not… it's already end of the term" (Interview, C 1).

Similarly, SU9 felt that time constraints were a hindrance to her learning. SU9 had a low level of confidence to experiment with new teaching activities in her classroom, and time constraints aggravated her situation further. SU9 complained that she had "no time to try these things with them because there's only ten weeks" (Interview, C 3). Most of the time, she felt like she was in a "…rat-race… try to finish all of that and I really find

myself… I wish I got time" (Interview, C 3). Because of this work-related constraint, she experimented with 'copywriting' outside of her teaching time, trying it out on two of her Omani students and requesting them to do it as homework. As she did not monitor the work done by her students, she did not have much information to share for further discussion. JO7, who was teaching less proficient learners than SU9 and LE6, faced more challenging time constraints on experimentation. To understand her students' struggles in learning English, she sacrificed some of her own personal time to interview them.

Time constraints were also a hindering factor to ME2's processing of information gained from community sharing. Being a new teacher, she required more time to adapt the strategies learnt to suit her teaching. However, she reported not having enough time to do so:

> I have to admit that I simply did not have the time because that technique for my class I need to change a lot… I need to tweak because I can't use exactly what they had used and they reported during the IC meeting. I can't do exactly that because it's not going to work so I have to tweak here and there and I have to change and I have not had that kind of time to do that. (ME2, Interview, C 2)

A similar problem was experienced by SA8 in the third cycle, when she was part of the UCSU and was teaching for seven weeks in the short semester. Despite the doubling of the contact hours with students every week, she struggled when she experimented with 'copywriting' during the short semester. She reported that she did not have enough time to evaluate the effect of 'copywriting' on her students' writing and experiment with it repeatedly:

> Whatever that was shared in the IC I couldn't go back and practice in my class, I try to do you know like copy-writing and… and paraphrasing, all these things that were brought up …but I couldn't practice it so… and I comment on things but I cannot give feedback and saying that this worked in my class or this did not work because there are only seven weeks. (SA8, Interview, C 3)

Time, however, was not a hindrance for SA8 when she was teaching 'Theme Study' under the MUFY programme during the first and second cycle. Under the MUFY

programme, SA8 taught 18 hours per week for the duration of 18 weeks. Despite her busy schedule, she experimented with inquiry-based teaching the most during these cycles and continuously shared her experiences with the community.

AL1, MI4, and HE5, on the other hand, did not face any time constraints in all three cycles; however, they did not report any experiment with new strategies learnt through community sharing. This was attributed to many individual teachers' factors.

5.4.3.2 Administrative Work

Even though it was agreed that teachers' time tables were to be blocked from any activities during lunch time on Friday for the period of three semesters so that they could attend TIC meetings, at times teachers were unable to come on time as they were tied up with administrative work, for example, test invigilation or teachers' meetings. This was observed to occur generally among the IEP teachers. Sometimes they had to leave slightly early because they had to prepare test venues or they had other meetings to attend. Sometimes, they would come after a discussion on a dilemma had started and leave when community members were discussing the strategies to resolve a certain dilemma. This impacted teachers' reflection or understanding of specific issues, outcomes of experiments, or use of specific strategies. This frustration was voiced by JO7:

> We couldn't find a common time where all the teachers can come together without interruption so I think the primary concern I suppose that obstacle that we need to overcome is…you know finding the time whereby everyone can come together. (Interview, C 2)

5.4.3.3 Shared/Sole Responsibilities

Another factor within the workplace that could hinder individual processing of knowledge learnt was shared responsibilities. Some of the courses taught by the participants were also taught by others. As this was the case, teaching materials were often standardized, and this resulted in teachers having to follow a specific pathway in

teaching a specific language skill or component. For a new teacher like ME2, venturing away from the set path was an option that she was not willing to explore:

> And sometimes when you are teaching a certain subject, you are not the only one teaching that subject... so you can't do something totally different from the others. You can't just simply add what you like and all that without discussing with others and then sometimes the others might not like it. So there's always… those kind of things there's always a problem. (ME2, Interview, C 3)

This hindered her exploration of the new strategies learnt through community sharing. Similarly, in the IEP, more than one teacher was assigned to teach a skill at one level of proficiency. According to SU9, everyone teaching the same level had "to do the same thing" (Interview, C 3) which at times made her feel overwhelmed. On top of that, those teaching the same level had to use a fixed set of teaching materials:

> Like we have a text book and I have to finish that text book nine chapters within the ten weeks. Then I have worksheets that…which are fixed for each class like if I am in Level 3, we have four Level 3s and all the four classes have to finish all of that papers and hands-out within that week… (SU9, Interview, C 3)

The set pathway gave teachers limited room to explore and find solutions to their instructional dilemmas: "It is just that in IEP... sometimes we don't have time to dwell on spelling..." (LE6, Wk. 4, C 1). Even though LE6 considered her students' problems in spelling as serious, she had very limited time and space to deal with them as she had to abide by her scheme of work very closely. This perhaps explained why LE6 allocated only one small part of her lesson to deal with spelling problems, SU9 took a very small risk when experimenting with 'copywriting,' and JO7 used her own personal time to explore her students' problems in learning English.

It was found that shared responsibility was not a hindrance for some teachers because even though they were given a course outline to abide by, what teachers did in their classrooms were left up to them. CA3 was not the only one teaching academic writing in the second cycle. In fact, there were a few other teachers teaching 'English for Business' in her department in that particular semester. Despite this, teachers were given

the liberty to teach their students in any way they liked as long as they covered all the important items listed in the syllabus and they prepared the students for the assignments and the final examination. This flexibility gave her space to experiment with inquiry-based teaching in her teaching of academic writing. Similarly, SA8 was given flexibility to approach her teaching of 'Theme Study.' This gave her the freedom to repeatedly experiment with inquiry-based teaching to improve her students' written responses.

It was also observed that a teacher's receptiveness to the suggestions given to solve her dilemma could also be linked to her responsibilities in a program. This was obvious in NA10's case. NA10 acknowledged other community members' opinions on the need to reduce the difficulty level of the teaching material she used in her classroom; however, she did not make any changes to it. This could be attributed to her belief in maintaining the 'standard' of her program and also because she was the only one in-charge of it, from running the program to preparing teaching materials and test papers and teaching it. Furthermore, prior to her participation in the TIC, NA10 had been in-charge of the program for more than three years. Changing the course materials she used in her classroom to a lower level as suggested by community members would require the whole program to be reworked. This perhaps would be too much for NA10 to handle by herself.

5.4.3.4 Program Objectives

Set program objectives could also affect a teacher's individual learning within the TIC, as in the case of NA10. Heading the Enrichment Program, NA10 was bestowed a task which she described as a "huge challenge" (Interview, C 3). She was given 18 weeks of about 180 hours of contact with students to improve their low level of proficiency to a level where they could:

> handle university assignments…essays and reports minimum is 1,500 words then that is in the first year, they have to be able to reach up to 2,000 to 3,000 words of essay and they have to be able to organize them and then you know write out the points coherently. (Interview, C 3)

NA10's beliefs of what was appropriate for her students was greatly influenced by the challenging nature and the objectives of her language program. This perhaps explained her cautious response to making changes to the teaching materials she used in her Enrichment classes.

5.4.3.5 Teaching Allocations

Teaching allocations in different semesters could also be a hindrance, particularly when it affected teachers' continuous processing of knowledge gained through community sharing. In other words, classroom allocation could affect sustainability of teacher learning within the TIC. Some teachers were given the same language courses to teach each semester. The students that they taught each semester were also at about the same level of proficiency and of similar backgrounds. Because of this, teachers like SA8 and CA3 were able to experiment with a specific strategy and ME2 was able to reflect on a specific issue, continuously. For the IEP teachers, however, this was not the case. They were not able to reflect continuously on a specific issue or experiment with a specific strategy because even though they were assigned the same proficiency courses to teach, they had to teach a new group of students each semester. Since their students were often of diverse background, in terms of their nationalities, cultures, and learning backgrounds, each semester the IEP teachers were presented with new challenges to overcome. When this happened, the learning cycle for these teachers became fragmented as they could not sustain and extend their learning to the following cycle:

> I have an inkling of you know what is the ensuing issue but then again it takes a few more you know data collection because different group comes with different kind of challenges as well. (JO7, Interview, C 2)

At times, knowledge learnt was not processed further as there was no context for application of the new knowledge learnt. CA3, for example, was not able to apply new

strategies for the teaching of paraphrasing even when she found it useful because she was not assigned any writing classes in the third cycle. Since she could not apply the knowledge to her practice, she could not internalized it further: "I can't carry out the practice therefore…you know I tend to forget about it or something like that... when you experiment it you will remember better" (CA3, Interview, C 3).

5.4.3.6 System Imposed

Teacher learning in the TIC could also be hindered by a certain system imposed in a language program. HE5, who shared her anxiety in marking argumentative essays, could not implement the strategies suggested by the community members because her program imposed a standard moderation marking system. Because of this, HE5 was afraid to allow teachers within the community to take a look at the scripts she had marked because she was assigned a moderator who would second mark her essays. HE5 was worried that this would disrupt the moderation process, most particularly if conflicting responses were given by the moderator and the TIC member. Since this was the case, HE5 stopped the sharing of her dilemma with the community.

5.5 Analytic Summary

Various factors found within the TIC, the individual teachers and teachers' workplaces influenced collective generation and processing of knowledge and teachers' individual processes of knowledge learnt.

Factors found within the teacher community were generally positive and supportive of the learning processes occurring at group and individual levels. Being an informal and exclusive group had a positive impact on the generation of knowledge within the TIC. Community members' professionalism, willingness to share, and open-mindedness also had positive impacts on group processes as these factors created a safe

and supportive environment for sharing, generating a wide range and an abundance of knowledge and perspectives on various issues and dilemmas discussed.

Community members' diversity was found to have both positive and negative impacts on the processes within the teacher community. Teachers' diverse educational backgrounds, work, and teaching experiences had a positive impact on the discussions as these factors led to the emergence of a wide range of knowledge, perspectives, and views on issues and matters discussed. Diversity in terms of teachers' present teaching contexts and teaching needs, however, was found to have some negative effects on interactions within the TIC as it made the discussions relevant to some but not others. For example, some teachers, particularly those teaching more proficient learners, found the discussion on 'copywriting' and improving students' spelling irrelevant to their context and thus chose not to process this information further. Similarly, discussions on critical thinking and the teaching of argumentative essays was considered irrelevant by teachers who were teaching lower-proficiency learners. Even though teachers were active during discussions on the mentioned skills or problems, they did not process knowledge emerging from such sharing further because it was irrelevant to their present teaching context. This shows that diversified teachers' immediate needs and teaching contexts had an impact on the content of the discussions and individual processing of knowledge learnt from community sharing.

Generally, tools found within the TIC had positive impacts on both group and individual-level processes. It was found that the evidence of practice shared and the qualitative questionnaires utilized had overlapping roles in promoting inquiry, reflection, and experimentation on practice. The evidence of practice shared and also the protocol played significant roles in ensuring transparency of the dilemmas discussed and in keeping the discussions on track.

Despite the positive effect of the protocol on the group discussions, it was found that it had one significant flaw: It did not address gaps in teachers' knowledge. The protocol employed promoted the generation of teachers' practical knowledge about students, teaching, and learning. This knowledge, which was triggered by collective reflection on dilemmas, most of the time, was not problematic. In fact, practical knowledge that teachers shared triggered reflection and supported discussion on dilemmas. It was observed that relying on teachers' practical knowledge to support discussions only became problematic when teachers had inadequate knowledge about what was being discussed, for example, causes of students' problematic behaviour or foreign students' cultural backgrounds. When this occurred, teachers were found to be relying only on the knowledge or past experiences they had about these students, resulting in the sharing of stereotypes that teachers had formed about them. Alternative perspectives on students' cultures and backgrounds only emerged when a teacher shared her interviews with her students (i.e., JO7's interviews with her Omani students). Teachers' gaps in knowledge were also obvious during discussions on specific teaching strategies. Even though teachers reported that they learned a lot of new strategies emerging from discussions on instructional dilemmas, they reported learning a lot of in-depth knowledge about inquiry-based teaching, copywriting, and paraphrasing when journal and web articles about them were shared. These findings show that varied input was vital and beneficial to group processes. They filled in gaps in teachers' knowledge, substantiated and extended the discussions on students and teaching strategies, and enhanced teachers' understanding of the strategies and other aspects of teaching and learning.

Instructional dilemmas shared were found to have an impact on the content of discussions and on group processes. Instructional dilemmas that were too obscure often resulted in a loose and generic discussion leading to exchanges of teaching tips and

common sense. A discussion on a dilemma became more focused and relevant when adequate information was disclosed and shared. Obscurity of instructional dilemmas, however, generated an extensive discussion on a problematic student. This could probably be because of the intriguing nature of the dilemma and the fact that it was an area that teachers could contribute to because of its familiarity. It was also found that the discussion on an instructional dilemma did not become exploratory when it was presented with the intervention plan designed to solve the dilemma.

Many factors which hindered individual-level processes were found within teachers. Teacher set beliefs relating to what they perceived as practical, feasible, and relevant influenced what teachers chose to select and process further. Teachers' attitudes towards learning and improving practice, on the other hand, influenced teachers' levels of involvement, particularly in reflecting and experimenting on practice. Teachers' attitudes towards their own learning was found to be influenced by external circumstances, biological factors, and teaching experiences. Teachers' external circumstances and biological factors affected their motivation to learn, and this affected their individual processing of knowledge learnt, as in the case of AL1 and HE5. It was also found that a teacher's vast teaching experience could be a hindrance to her individual learning as it made her less receptive to the sharing within the community, as in the case of MI4. Limited experiences in teaching, on the other hand, affected teachers' confidence levels, and this particularly hindered their exploration of new strategies in their individual practice, as in the cases of the new teachers, ME2 and SU9. A teacher's lack of reflective skills could also impact her processing of knowledge learnt as it led to superficial learning, as in the case of AL1.

Teachers who displayed positive attitudes and appeared to be intrinsically motivated were generally supportive of both collective and individual processes. They were not only supportive of and active in group discussions, they were also active in their

own learning. These teachers continuously disclosed their practice, experimented with new strategies in teaching, and reported outcomes of their experiments. These teachers also displayed high levels of confidence in disclosing their practice for others to examine, trying out new teaching strategies in their classrooms and making changes to their practice to improve their students' learning. This was evident in the case of SA8 and CA3.

Factors found within teachers' workplace contexts particularly relating to their language programs were found to have adverse effects on individual teachers' processing of knowledge learnt. Time constraints, administrative work, shared/sole responsibilities, set program objectives, and imposed systems affected some of the teachers' exploration with newly learnt knowledge gained from community sharing. It was also found that learning within the community became fragmented for the IEP teachers, who were given different group of students to teach each semester. This was because often their students were of diverse background, and as a result, they often posed new challenges for the teachers. The IEP teachers thus struggled to apply what they had learnt in one cycle to the next as in the new cycle, they had different problems to address. A system imposed within a program, i.e., a moderation system, could also hamper teacher learning, as in the case of HE5.

Negative factors within teachers were found to have negative implications on individual-level processes, even when workplace factors were supportive of teacher learning. Positive factors within the individual teachers would overcome hindering factors which existed within the workplace. Strong and positive attitudes toward learning overcame time limitations to process knowledge learnt, particularly through experimentation on practice. SA8's high teaching hours in the first and the second cycle did not dampen her efforts to repeatedly experiment with the inquiry-based teaching, a method she learnt through community sharing. On the other hand, MI4, HE5, and AL1, who had low contact hours in all three cycles, did not experiment with any of the

knowledge they learnt from community sharing. MI4 was most probably hindered by her strongly-held beliefs and past teaching experiences, which impacted her flexibility and attitude toward learning and change. HE5 and AL1's external circumstances and biological factors were the main constraints of their learning as these two factors impacted their motivation to learn.

For some teachers, it was a combination of different factors within different contexts which influenced their participation within the TIC. For example, in SU9 and ME2's case, it was their low levels of confidence and restrictive work environments which impacted their learning. In the case of NA10, it was her beliefs about the 'standard' to be maintained, her own learning experiences, and the set objectives of the Enrichment Program which restricted her exploration with new ideas learnt from the TIC. In HE5's case, it was her external circumstances, biological factors, and the restrictions within her workplace relating to the imposition of a moderation system which impacted her learning within the community. In AL1's case, it was a combination of various factors, for example, her biological factors and external circumstances, and lack of skills to reflect which hindered her learning. MI4's learning, on the other hand, was affected by her strong beliefs and past teaching experiences, which made her less receptive to the sharing within the community.

The following section explores the collective actions of the teacher community during TIC meetings. It also explores teacher's individual actions and the impact of teachers' individual actions on teachers and their practices.

5.6 Actions of Teachers

Analyses of data retrieved from various sources revealed distinctive features of teachers' collective actions as a teacher community and teachers' individual actions as individual participants of the TIC.

5.6.1 Actions of Teacher Community

As a collective force, the TIC responded positively to the protocol employed and most, if not all, were supportive of the efforts some teachers made to improve their practice. Teachers were willing to share and often showed genuine concern during discussions on instructional dilemmas. They were also analytical and critical of each other's sharing. This was evident when they continuously negotiated knowledge that surfaced by agreeing or disagreeing to what was shared. Even though, in some discussions, some teachers were more focused on finding solutions to the instructional dilemmas disclosed, collectively, the TIC was a positive and a supportive force. Figure 5.5 displays the collective actions of the TIC.

5.6.1.1 Complying with the Protocol

Teachers were generally supportive of the protocol employed within the TIC. Even though the protocol specified different stages of a discussion on dilemmas, since the discussions took place within an informal setting, the stages at times merged and overlapped. In other words, the discussion on dilemmas was not linear, where one stage commenced when another was completed. For example, even though there was a stage for clarifying and probing of the instructional dilemma shared, teachers continuously asked questions and shared information and knowledge throughout the discussion on the dilemma. Furthermore, it was identified that teachers not only asked probing questions of the teacher who shared her dilemma, but they also questioned one another whenever an idea, a strategy, or an opinion shared relating to the dilemma disclosed needed clarification. Despite these variations from the enforced stages, teachers supported the protocol as discussions were generally within the "set path."

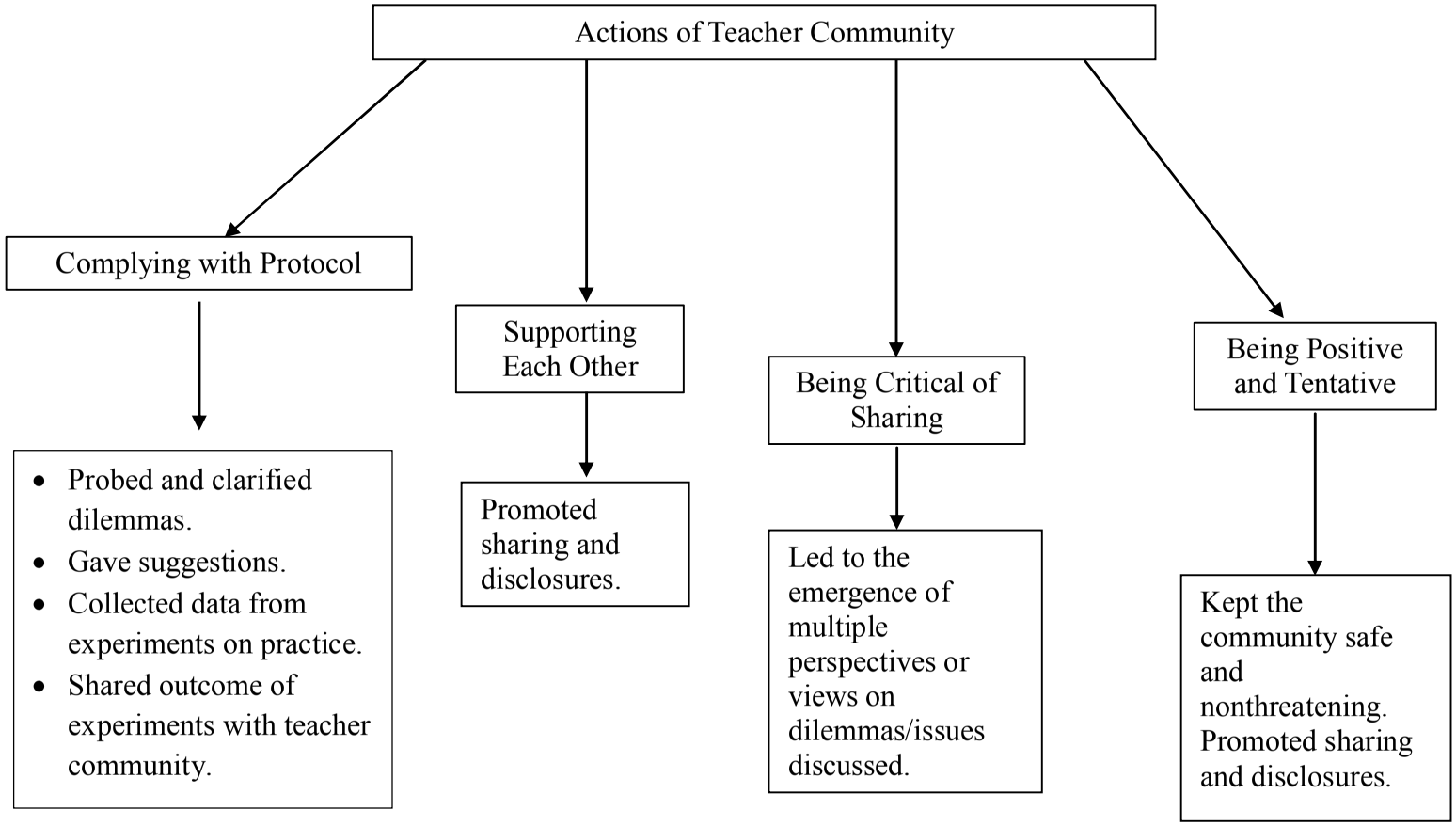

Figure 5.5: Actions of Teacher Community

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Even though analyses of interactions identified 'extra' stages in which teachers negotiated emerging knowledge, refined given suggestions, and discussed external sources, the interactions within these stages provided ample evidence of the positive and collective actions of the community members in supporting the objectives of the teacher community and the protocol.

Analyses of interactions also revealed that teachers would provide suggestions throughout the discussion on a dilemma, at times even before the problem shared was clarified. This often did not disrupt the discussion on a dilemma as observed in the discussion of ME2's dilemma. During the early stage of the discussion on Halem, MI4 suggested that ME2 should send Halem to a counsellor to solve her problem. As the suggestion given implied passing 'the problem' to someone else, in this case, a counsellor, the discussion could have been stunted. Despite this, the discussion on Halem picked up as teachers tried to make sense of Halem's behaviour and suggested various ways to help ME2 understand Halem better. It was also observed that even though sometimes teachers shared irrelevant information, this happened rarely and sporadically. Most of the time, the sharing within the TIC was on track. Teachers also collected data or evidence through their exploration on practice to share with the teacher community. Even though the experiments that teachers attempted within their classrooms differed in scale and frequency, most of the teachers who shared their instructional dilemmas attempted the action plans suggested by others. This showed teachers' compliance to the protocol employed.

5.6.1.2 Supporting Each Other

Teachers were not only supportive of the protocol, but they were also supportive of each other. They showed supportiveness by sharing and disclosing information about their practice during community meetings. Even from the very beginning, teachers

showed limited inhibition in sharing their practice. Even though some teachers had voiced their nervousness, they reported overcoming the feeling as discussions on dilemmas continued. ME2, for example, shared:

> I think that sharing your problems with other lecturer can be a bit daunting. You might feel that others might judge you. However, despite the recording and the observation, after a while, everybody was paying more attention to the problem and the discussion and not them being recorded and observed. (Wk. 2, C 1)

When teachers shared the problems they faced in teaching, community members displayed supportiveness through their nonverbal actions and verbal communications. They expressed supportiveness by showing positive nonverbal cues when listening to others disclosing their problems in practice, most of the time interrupting only when they wanted to ask questions. When a student's written work was shared, teachers were generally giving their full attention to the artefact, highlighting information that interested them and asking questions when they required clarifications. The supportive receptiveness of the teacher community was clearly expressed by NA10 when she first joined the TIC and shared an instructional problem:

> Everyone made me feel so welcomed! When I described my problem, they listened carefully without interrupting except when they needed clarification. They made sure they understood my problem clearly before they came up with suggestions. I want to add that their facial expressions and body language clearly indicated they were listening seriously. There were no frowns or any negative gestures from my colleagues. This helped me to express myself clearly and more confidently, knowing that they were genuinely interested in how they could help. (Wk. 1, C 2)

Supportiveness was also reflected in reciprocal disclosures that teachers made. Most teachers within the TIC reciprocated the sharing of teachers by reflecting on their own practice and sharing their own problems in learning and in teaching. In other words, when teachers shared the problems they faced in teaching, other teachers would share their own failures and difficulties in teaching. This reciprocity made sharing of instructional dilemmas less intimidating for teachers. It also helped maintain a healthy flow of information and a continuous sharing of instructional dilemmas during community

meetings. As a teacher community, teachers were also supportive of each other by showing their willingness to help teachers with dilemmas solve their problems in practice. They were often willing to share their thoughts, experiences, and opinions on matters raised: "They always have something to say… suggestions to give and most of the time one suggestion is different from the other" (ME2, Interview, C 1). According to MI4, when a problem was shared, "Everybody brings in ideas, shares and proposes you know different ways to help each other out …" (Interview, C 2). NA10 also shared a similar observation:

> I think what I like is that… you know I look at the colleagues, they come and they really have ideas you know, they are very well-trained…that is what I really appreciate and value. They really have ideas and they are willing to share. They don't keep back you know. (Interview, C 2)

Teachers also took the trouble refining the suggestions given for the teachers to apply within their classrooms. These positive community actions made LE6 perceive the community as a 'support group' she could turn to when she had problems in her practice: "I can share it with fellow teachers and they can actually give feedback or they can give advice and suggestion how I can actually solve teaching problems" (Interview, C 2). CA3 shared a similar feeling pertaining to the support she felt she received from the teacher community:

> I didn't really do it in my previous workplace now I think about it like you know last time, you feel sad that it didn't work and then you will tell another colleague and then she/he will just hear about it…and then you forget about it… the whole thing you know. So now at least you know what to do, how to improve, you can discuss with your group. (Wk. 6, C 3)

When NA10 shared a 13-step activity that she devised to improve her students' sentence construction, many teachers gave verbal encouragement to show support for her effort. They acknowledged and endorsed the ideas that she shared to improve her teaching. HE5 praised NA10 for the effort that she took in designing an extensive strategy to teach sentence construction and she also expressed her intention to apply some parts

of the activity within her own classroom. ME2 openly expressed her admiration over the amount of effort that NA10 had put into her work to produce the 13-step activity for the teaching of sentence construction: "I think this is great, wonderful…" (Wk. 7, C 3).

When teachers shared their problems with the teacher community, teachers would give encouraging words to support the teachers' efforts:

> For example JO7… the way she deals with her very weak students also I mean when… when at the end of it we could see how… how she had to deal with all these you know very weak students and I felt that it was… could see that you know the teachers the…the participants actually try to sort of give some encouragement so that she won't feel so bad you know or there's no help at all so I think it's been good so far. (LE6, Interview, C 2)

Through verbal contributions, teachers also showed empathy of other teachers' problems in practice. During SA8's disclosure of the dilemma she experienced in her 'Theme Study' class, teachers were empathetic over her predicament. LE6, for example, expressed her understanding of what SA8 was going through by relating the situation to her own teaching:

> Yes...I sympathize with you... empathize as well because right… I teach intensive English program and you know these are very weak students but they also have to read something like that... but not the whole book they will read very short story... one or two pages... not simple... (Wk. 2, C 1)

Teachers were not only empathetic, they were also non-judgmental. None of the teachers had ever reported feeling attacked or judged when they shared their instructional problems or when they expressed their opinions or gave their ideas. In fact, discussions never became personal and focus during discussions was always kept within the boundaries of teachers' practice. This positive attribute of the TIC was clearly expressed by MI4:

> We had the two lecturers who spoke out about their students...about their student, so there was nobody amongst us who were saying that, oh because that lecturer has a poor teaching strategies that's why the students are like that, no...In fact we all go through the same pain as those lecturers so there is nothing…You know

negative about the feeling towards the people who brought out the problem. (MI4, Interview, C 1)

5.6.1.3 Being Critical

Even though the interactions between members were generally positive and supportive, teachers were critical of each other's contributions. Collectively, teachers would question or raise concerns over a strategy employed and suggested, opinions given, assumptions formed, or the beliefs of the teacher with the dilemma. Since other teachers also disclosed their beliefs and opinions of issues discussed, these were also challenged and negotiated. They continuously negotiated knowledge that surfaced by agreeing and disagreeing with one another. During a discussion on how to improve students' spelling of English words, MI4 suggested that rewards be given to students who got their spelling right. JO7 disagreed with MI4's suggestion and explained that such a gesture could be "very belittling to them (the students), particularly for the ones who cannot spell" (Wk. 4, C 1). She then suggested that the teachers should approach the teaching of spelling as a collaborative effort among students in which all students could participate. When NA10 shared her dilemma, she also disclosed the kinds of materials she used within the classroom. As she was teaching English to lower-proficiency learners, community members expressed concerns over the teaching materials used as NA10 was using intermediate level teaching materials. Another specific example which showed teachers' criticality over community sharing was during CA3's sharing of her instructional dilemma about Karim, an Iranian student who was disruptive in her Study Skills class. In her disclosure, CA3 revealed that she tried to put a stop to his disruption in her classroom by telling him to come and see her later in her office to discuss whatever problems he had. Other community members questioned the strategy that CA3 had used to curb the problem. They, for example, emphasised that because the causes of the student's behaviour was unknown to CA3, it was important that she address the matter in a more

positive way so that he would not feel that he was the problem, he would not feel intimidated by the teacher (he might just want to be assertive, but it came across as disruptive), and he would not become more rebellious, (a reaction to the attempt to reprimand his behaviour). They suggested that instead of telling Karim to meet her later after class in a form of a directive, she should say it in a more casual way, for example, inviting him to her room for a 'chat,' so the student would not feel defensive or threatened by the teacher.

Not only did teachers question and challenge some of the information disclosed by the teachers with dilemmas, they were also critical of each other. During the discussion on Karim, HE5 disclosed that when a student was disruptive in her class, she 'used' the disruptive student as a point of discussion to show how his behaviour is promoting a negative impression of him. Some of the community members openly disagreed with this strategy. SA8, for example, questioned HE5, "How do you think he (the student) would feel about it?"

5.6.1.4 Being Positive and Tentative

Even though there were many instances where teachers disagreed with one another, community members generally used positive language to send their messages across. This kept the community members in harmony with one another. For example, SA8 observed that before teachers pointed out their disagreement with an opinion or a strategy that was shared or another teacher had used in her classroom, they would buffer it by commenting positively about it before giving their opinion on it:

> I think they always like to say something positive like... what you have done is right, it's good that you have actually make them aware but possibly you can move in that direction so I think there's always something quite positive, said first and then pointing out… (SA8, Interview, C 1)

NA10 also observed that community members did not oppose others' opinions or ideas openly: "They never say you know…no…I disagree with you… that means you know even if…anybody disagrees...they don't use that kind of language" (NA10, Interview, C 2). Not only that, there were many traces of polite language detected during discussions, particularly during the probing stage. At times, teachers even asked permission to ask questions: "Can I just query…have you found out like which areas are they particularly making spelling mistakes… in the diphthongs or the 'ght'?" (Wk. 4, C1); "I have this… Can I just add more?" (Wk. 4, C1). At one point during a discussion, HE5 apologized before she asked a probing question to understand NA10's practice: "Sorry I have … Sorry NA10 I just have to ask like for your students, what are the kind of essays that they have to write like for example… persuasive essay or…?" (HE5, Wk. 7, C 3).

In addition, teachers did not give suggestions in the form of imperatives. They gave their suggestions in a tentative and cautious manner. Teachers such as LE6 and CA3 often used fillers and pauses when giving suggestions to other teachers. At times, teachers even disguised the suggestions given in the form of questions: "Why don't you ask them to… put them in a group and then they discussed among themselves… you think they would be more analytical?" (Wk. 2, C 1). In another example, during the discussions on Karim, teachers cautiously gave suggestions using a lot of tentative language: "*I think* some form of reinforcement…*maybe* if she foresees this as a continuous problem…"; "but if it is good *maybe* you can tell him… you know I know that you are well aware, you are confident and all…"; "*I think* the best that you can do…for me …*maybe* you can have a one-to-one session with him…" (Wk. 2, C 1). When giving suggestions to ease HE5's problem in marking argumentative essays, CA3 gave her suggestions cautiously: "*I am not sure but I think* you can choose the best...and then the worse you think it is... and then you try okay… *maybe* the second marker... just ask her suggestion if you have evaluated it correctly" (Wk. 6, C 1). SA8, at one point, asked for permission to give a suggestion to

NA10 on how to improve her teaching of sentence construction: "Can I give a suggestion?" (SA8, Wk. 1, C 2). During a discussion on NA10's dilemma when HE5 wanted to suggest an intervention plan, she began by apologizing and embedded the suggestion within a hypothetical situation:

> Actually… sorry… I was thinking if I am in this situation probably I would ask the students to write first and then send me an email because because you don't have time to spend during the class right… to check their work and all so what you can do is that you ask them to send to you, you can mark on your own first and then bring one of these samples, discuss it in the class which you think you can really ... you know like really help them you know or to see that, oh this is how you paraphrase. (Wk. 7, C 3)

5.6.2 Actions of Individual Teachers

As a collective force, the TIC was supportive of the protocol and of each other. As a result, most of the time, teachers reported a positive experience being in the teacher community. Findings on actions of individual teachers, however, show mixed responses to the processes within the TIC. Analyses of data revealed that teachers' levels of involvement and efforts in improving their practice varied in terms of depth and continuity (View Figure 5.6 for actions of individual teachers in the TIC).

5.6.2.1 Sharing Practice and Instructional Dilemmas

In supporting the discussions within the TIC, some teachers shared more of their practice than others, particularly in the sharing of instructional problems. All teachers within the community shared at least one instructional problem, except MI4 and AL1, who shared none. SA8 shared two instructional dilemmas and CA3 disclosed three problems she encountered in teaching. HE5, NA10, JO7, LE6, and ME2 shared one instructional dilemma each. Even though SU9 did not formally introduce a problem she had in her practice, she shared a problem she encountered when she experimented with 'copywriting.'

Figure 5.6: Actions of Individual Teachers

MI4 and AL1 were active contributors to other teachers' dilemmas. They gave a lot of opinions and suggestions to help other teachers solve their problems in practice. In fact, AL1 was one of the teachers who suggested the use of inquiry-based teaching to SA8. MI4 too was prolific when providing suggestions to other teachers. Despite this valuable contribution to the TIC, both of them did not share a single problem in their practice but only revealed bits and pieces of their practice when they responded to other teachers' dilemmas. As a result, their instructional practice remained obscure to others within the community.

It was found that the instructional practice of teachers who shared their dilemmas and shared the outcomes of their explorations with new teaching strategies was more transparent compared to teachers who did not share any. Often, the probing questions and the negotiation process that teachers underwent during the discussions of their dilemmas would reveal more of their practice to others. This was apparent in CA3 and SA8's case.

Teachers' decisions to share instructional dilemmas seemed to have an evident impact on the outcome of their participation. The sharing of instructional dilemmas placed teachers' practice under scrutiny. Through this collective examination, aspects of their teaching which were oblivious to them were highlighted, providing them opportunities to view their teaching from the perspectives of others. One positive outcome of this process was teachers' new understanding of their practice. ME2's sharing of her dilemma with Halem increased her own understanding of the way she perceived problematic students. Similarly, LE6's sharing of her dilemma on improving her students' spelling made her more aware of the importance of raising students' awareness on getting their basics in English (i.e., their spelling) right. After the discussion on her dilemma, NA10 realized that the problems that her students faced in writing could be due to her unrealistic expectations as she was using materials that were perceived to be too difficult for her students. In another discussion on her practice, NA10 became aware that her motherly,

empathetic approach in teaching could be the root cause of her students' dependence on her. When CA3 experimented with inquiry-based activities within her academic writing classrooms, she recorded mixed outcomes. Because of the different outcomes achieved, extensive discussions were carried out to understand the causes of it. Consequently, CA3 became more aware of the different forces within her classrooms that could impact her teaching and her students' learning.

Some teachers not only shared instructional dilemmas, they also continuously exposed their teaching through their continuous reporting on the outcomes of the experiments they carried out in their classrooms. As teachers' practice was continuously placed under scrutiny and analyzed by community members, they became more aware of flawed teaching approaches. This new awareness resulted in some adjustment to teaching. One specific example is in the case of SA8. After the discussion on her dilemma, SA8 became more aware of the autocratic approach she adopted, which she realized did not seem to improve her students' levels of criticality when responding to the literary questions she gave. She also became more aware of her unwillingness to let her students make important decisions in her classroom. This new awareness consequently led to some modifications to her practice: Her classrooms became more learner-centred, and students were given more autonomy.

AL1 and MI4, who did not share any instructional dilemmas, reported learning new knowledge and gaining new awareness about various aspects of teaching and learning. However, neither of them reported any new awareness they gained pertaining to their own instructional practice.

5.6.2.2 Focusing on Solution

At times, during discussions on instructional dilemmas, some individual teachers became too focused on giving suggestions or finding solutions to the problems shared.

One teacher who was found to be too focused on giving solutions to instructional dilemmas was MI4. LE6, on the other hand, was found to be too focused on finding the solutions to the problem that she disclosed to the community, which was to improve her Middle Eastern students' spelling. In other discussions, however, LE6 was not observed behaving in such a way. At other times, she appeared very much involved in the group processes. In fact, at the end of the first cycle, LE6 reported feeling 'uncomfortable' when other teachers were too focused on giving solutions to the instructional problem shared because she believed that doing so would stunt the discussion on it:

> You know like giving feedback without really asking any questions you know like just assuming ok this… this solution is the answer to that problem... there is no further explanation you know why we need that solution or why we came up to that solution perhaps that solution is final if not you know… it could be a final solution before or after everything else has been done and instead of just saying ok just you know let send the student for counselling. (LE6, Interview, C 1)

LE6 felt that being too focused on solutions could make teachers become side-tracked. When this happened, learning within the community would be affected as there was not enough discussion carried out: "The discussion is important so like if you sort of reach the conclusion really fast so you are not going to learning anything" (LE6, Interview, C 1). LE6's focus on the solution of her dilemma was perhaps understandable as she was looking forward to receiving input on strategies that she could employ to improve a pertinent problem in her practice, which was her students' poor spelling of English words.

5.6.2.3 Designing Future Classroom Activities

When teachers took part in the discussions that interested them, at times, they would design and plan language activities which included the new knowledge that they had learnt from the sharing. These plans were at times placed in storage for application in their future practice.

After the discussion on JO7's dilemma and listening to the recording of JO7's students on the problems they faced in learning English in their native country, Oman, SA8 reflected on the session and listed down the problems faced by the Omani students in learning English:

1. Omani students have language problems due to interference of L1— no capitalization and punctuation in Arabic; hence, grasping the concept is difficult.
2. Techniques used to teach English in Oman also contributed to the problem.
3. Learning of grammar in isolation without using it for writing is detrimental.
4. Students are not familiar with the rules of spelling — English phonetic system different from Arabic phonetic system.
5. Students probably can't spell well due to transfer of Arabic patterns — omitted vowels, and thus syllables. (QQ, Wk. 9, C 2)

Based on this new understanding, SA8 designed a strategy that she would employ when teaching Middle Eastern students' writing in the future:

> I think I will need to look at the common errors made by the students, analyze why the errors were made and find ways to address it. For example, for the Omani students, I would make an analysis of common errors – mistakes with vowels (missing vowels, extra vowels, incorrect vowels), mistakes with consonants (wrong individual consonant, wrong pattern/rule, extra consonants, missing consonants) etc. From this I can probably conclude that students lack phonetic spelling strategies. I would try teaching them spelling using segmentation, phoneme/grapheme correspondences etc. (QQ, Wk. 9, C 2)

The new understanding on the reasons behind JO7's Omani students' problems in learning to write in English gave SA8 new ideas to strategize her future teaching particularly when it involved Middle Eastern students.

During a post-project interview, JO7 shared her future plans to continue investigating the learning backgrounds of her students. She planned to do "a video version as well" (Wk. 9, C 2). In the past, she audio-recorded her interviews with the students to understand her students better. In the future, she planned to video-record her interviews with her students to discover their problems in learning and to discuss their progress. She

also planned to show the videos to other students, after gaining permission from the students who were video-recorded, to trigger discussions on problems they faced in learning English as a foreign language and on ways to overcome the problems identified.

This gave ideas to other teachers to start an investigation on their own practice. SU9 identified JO7's method of examining her teaching as the method that she could apply within her own classroom:

> You see even like what JO7 has done you know like checking on their level of correcting themselves. Why are they not correcting themselves? So it's become such a format I can always use it in my class you know…using recorder, interviewing them, having a consultation with them, try to understand why is it that although they have been taught so much, why is it that the correction is not taking place then you realize all the background. (Interview, C 2)

LE6, too, learned new methods to examine her own practice from her participation in the discussion on JO7's dilemmas:

> For me as teacher from what I have learnt from JO7, maybe I could also do the same and actually interview them and see if they have… there's a gap between the... my expectation of them and actually what they are able to achieve or what they have done you know so far I mean in their own country and then the difference between learning English in their own country and learning English here. (Interview, C 2)

After taking part in a discussion on inquiry-based teaching, NA10 reported learning the benefits of employing the method in her own classroom. She was particularly drawn to the change occurring within SA8 and CA3's classrooms as with the inclusion of inquiry-based activities their students became more involved in their own learning. This new awareness resulted in a planned activity, which was more student-centred for the coming semester:

> Next semester, with my new batch of students, I would want them to peer-edit their friends' work in groups. I anticipate that at the beginning, they will be clumsy because of very limited vocabulary and poor grammar. So I will have to give them a guiding hand in terms of expressions they will find useful. Also, for a start, I could show them specifically what kind of peer-comments we are looking for by

> giving examples. With more sessions, they should be more confident and more language-proficient. (Interview, C 3)

In another sharing, HE5 shared a handout containing an activity she used to help her students structure their essays and paraphrase given statements. From the sharing, NA10 recorded the following learning point:

> The way the handout is designed – prompting the students with the examples and then allowing them to finish the paragraph – gives them a much clearer idea of what to do, so they have greater confidence. Very common sense approach. (QQ, Wk. 9, C 2)

Based on what she had learnt from the sharing, NA10 shared her plans for her future teaching of writing:

> Definitely the handout will be useful, very in fact, when I go into the 500-word essays. I will use the essays I have written out, modify them into the pattern as suggested in the handout. Probably I will get students to fill in some blanks for the Thesis Statement and the Topic Sentences; also for paraphrasing I will provide some clues for the blanks like starting them with an alphabet or two. (QQ, Wk. 9, C 2)

5.6.2.4 Reflecting on Practice

Another individual teachers' action detected was individual teachers' reflections on practice. Teachers reflected continuously during and after discussions on instructional dilemmas. When a teacher shared an instructional problem, she would be relating details of her practice to the teacher community. To do so, she would reflect on her practice and select relevant information and classroom events to be shared. She would again reflect on her classroom practice when responding to the questions posed by other teachers to understand her dilemma.

When teachers responded to others' sharing of dilemmas, they would recall and reflect on relevant events occurring within their own classrooms, their experiences dealing with students and being students themselves to support the discussion within the teacher community. Teachers would also share their reflections on strategies or

intervention plans they had implemented, relating various aspects within their classrooms that resulted in the reported outcomes.

Listening to other teachers' disclosures of their practice would also make teachers reflect on their practice:

> It makes me think about my own practice so when other people are discussing their problems and then I hear the other member giving suggestion, feedback so I put it all together it makes me think...can I use this way? Do I have this problem? In such a case how else can I tackle this kind of problem? (HE5, Interview, C 1)

CA3 recalled that listening to "different teachers' ideas" made her reflect on her practice: "You tend to think…I did not think in that way probably this would work and you know you go back to your class and try to implement it if it's practical to you" (Interview, C 1). Similarly, LE6 shared that she reflected on her practice when she took part in discussions on dilemmas and highlighted the importance of being among teachers in order to reach a good level of reflection on her own practice:

> If I am just alone I am not going through that process, I won't be able to have... arrive at that stage where I reflect on the problem or even on students and my own teaching. So it has to be with other people other teachers and as I listen to them and then this will actually help me to reflect more and… I think it makes me feel better as a teacher and I really think about how I teach and what my approach is in class and how I can make myself a better teacher. (Interview, C 3)

NA10 reported reflecting on session sharing at different times during the day.

> The reflecting stage would be what I called when I mulled over so the mulling over can occur any time, it can be here in my office or it can be in my class, it can be at home when I am taking my *bombom* (bath)… brush my teeth… because that is what you call the mulling process and definitely when I put them in writing, then it becomes more crystallized. (Interview, C 2)

Teachers continued to reflect when they responded to the researcher-generated document, the qualitative questionnaires which they were required to complete after each session. When responding to the questions, teachers incidentally reflected on the sessions to record what they had learnt from a sharing session. They also reflected on their practice

when they made connections between what they had learnt from the community sharing and their instructional practice:

> Because right now what we are doing is after each session, we reflect on the knowledge and then reflect on the relationship, we also reflect on the practices that can be used. (HE5, Interview, C 3)

Individual teachers were found to be reflecting at varying depth. Some teachers, for example, SA8 and NA10, would show a good level of reflection as their responses to the questions in the qualitative questionnaire consistently contained detailed accounts of what they had learnt from a session and how the knowledge they had learnt could impact their practice or influence their beliefs about teaching and learning. Depth of most of the teachers' reflection, however, was found to vary from one session to another. This was found to be influenced by the topic, issue, or dilemma discussed. Teachers were found to reflect with more depth when they reflected on an issue or a dilemma that was relevant to them. Some teachers, however, continuously responded to the questionnaires superficially. AL1 and MI4 were such teachers. For MI4, who had been teaching for 29 years, most of the community sharing was more like a revision or a refresher course for her. This perhaps explained her superficial reflections on most of the sharing within the community. Her responses showed some depth only when knowledge which she perceived as "new" emerged from a session. This was evident in her reflection on the session when "paraphrasing" was extensively discussed.

AL1 also reacted to most of the sessions in a superficial way. She often made general statements in response to the questions in the questionnaire and she rarely linked what she had learnt from a session to her own practice. After taking part in the discussion on SA8's first dilemma, AL1 wrote a general statement about what she had learnt from the sharing: "It was interesting to discover that the problem shared by SA8 is universal to all and in other words; a problem familiar and experienced by many in the session" (QQ, Wk. 2, C 1). When she responded to the second dilemma raised, CA3's problem with

Karim, she wrote that "it was good to share and relate my experiences in the session" (QQ, Wk. 3, C 1). During the session when 'copywriting' was discussed extensively, AL1 reflected on the session and recorded that it was "something new that I have not heard or done before" (QQ, Wk. 2, C 3). When she shared how the knowledge learnt could impact her practice, AL1 responded superficially: "This activity I believe could help improve the language skills of students especially in writing" (QQ, Wk. 2, C 3). Superficial reflection on practice was found to have a very minimal impact on teachers' practice, and this was particularly obvious in AL1's case.

As most of the discussion on an instructional dilemma was inquisitive and exploratory, teachers collectively explored causes of the instructional problem and its impact on the learning process, classroom teaching, students, and the teacher. Teachers gained new insights into the complexity of the teaching and learning processes when they reflected on the various factors that impacted these processes within the classroom. When CA3 experimented with inquiry-based teaching in different classes, her experiments resulted in varying outcomes. This prompted an extensive discussion on the elements within her classrooms (and SA8's) that impacted the effectiveness of the inquiry-based tasks, for example, the types of students (active vs. passive/Psychology students vs. Business students), their personalities, motivation, and attitudes, their present feelings, the classroom dynamics, and the nature of the task given. The discussion helped teachers gain a better understanding of the complexity of the teaching and learning process. When reflecting on the session, ME2 reported that she had become more aware that she needed to consider a lot of factors before a teaching strategy could be applied in her classroom:

> If I were to use this in my class, I need to pay attention to a lot of criteria that may affect the result of the practice. Students' attitude and knowledge will be quite a major factor in ensuring the practice to succeed. (QQ, Wk. 6, C 2)

In her reflection on the session, SU9 reported her new awareness of the dynamics of the students in a classroom and their personalities as important factors to consider as

they influenced the success of a class activity: "The very fact that the new idea worked with some classes and did not work with yet others proves that it does depend on the combination of students in any one particular class and their personalities" (QQ, Wk. 6, C 2). Reflecting on her classroom experience and the discussion, CA3 gained a new understanding of the complexity of the teaching process as it was influenced by various factors, for example, "students' attitude, behavior, personality, present feelings and motivation level" (QQ, Wk. 6, C 2). The new insights that teachers gained from their participation within the community made them realize that the teaching and learning processes taking place within their classroom was a complex one as they were influenced by multiple factors. It also made them understand that there were other elements/agents within the classrooms, other than the teacher, that could influence their students' learning.

Similarly, when a teacher shared the problem she faced with a problematic student, the community tried to understand the possible reasons for the student's behaviour. Taking part in such discussions triggered individual teachers' reflections and increased their awareness and understanding that there were often multiple factors that influenced or shaped students' behaviours. After taking part in various discussions on instructional dilemmas which focused on students' problematic behavior, MI4 realized that there were multiple reasons behind such behavior. Discussion on Halem made MI4 realize that there were multiple factors that could result in his problematic behaviour:

> Later when we discussed it so many questions are left unanswered like…maybe his culture and next what is his aim for coming here, why he isn't receptive, you see… there're so many other aspects to this person's dilemma. (Interview, C 1)

Gaining a better understanding of the various factors impacting students' behavior made some teachers realize that it was wrong to jump to conclusions:

> I am more aware of it now when I see a student who has got problem maybe I shouldn't jump to conclusion… so I am a little bit more aware of that now that it could be that they have problems and the thing is we have to know how to approach them. (LE6, Interview, C2)

CA3 reported gaining a similar insight:

> These two cases have actually given me different thoughts about difficult students. When we discuss Halem, the syndrome and all that… you know we shouldn't jump to conclusion very quickly, you at least need to give the student a few weeks to observe… it could be different things, could be culture, attitude or you know past knowledge. (Interview, C 1)

It made them realize the importance of asking questions or carrying out small investigations to understand students' actual problems:

> They have their own reasons why they do things like that...This information… at the back of my mind so in the future if I meet similar kind of student then I will know that I have to question first before I mark him down. (MI4, Interview, C 1)

Furthermore, many teachers reported being more aware of the importance of listening to their students: "I am more like you know I try to understand what they are saying, probably they have some reasoning and I have to listen to them you know" (CA3, Interview, C 1); and understanding their students' background in their preparation to teach them:

> Maybe I can find time to talk to them in person of you know their education background and to understand where they are coming from so maybe it can help me in my own expectation of that students so I know what to expect out of that student… (AL1, Interview, C 2)

Being aware of the varied factors impacting students' behaviour made some teachers more empathetic towards their students:

> It was a shock but it didn't actually solve the problem immediately just having the awareness that I suppose I ... they gain my sympathy ... my empathy that …understanding them... understanding why they are struggling, they have to cope with the sudden change but it didn't actually directly address the issue which of course will take a span of time. (LE6, Interview, C 2)

As teachers often reflected on their own practice when they were listening to others' sharing or when they were taking part in the discussions on their own dilemmas, some teachers became more aware of the constraints in their own practice. For LE6, sharing her problem, receiving feedback from others and experimenting with a spelling

activity within her writing classroom made her more aware of her limitations in solving her dilemma. Despite this, it made her realize that it was important to raise her students' awareness of the problem they have in spelling:

> In that short period of time we don't expect students to actually get it right away but I think it's a certain degree of achievement when students are aware that they have this problem because previously as we have discussed, students don't see it as a problem but for me to be able to raise their awareness you know to see that it is a problem because I talked to the students and they said teacher… yeah… I think it's a problem. (LE6, Interview, C 1)

Reflection also made some teachers become more aware of their flawed perception of their students. It was ME2's continuous reflection on the sharing on problematic students and students with learning difficulties, particularly students from the Middle East, which made her realize that her perception of such students was flawed as there were multiple factors that influenced their behaviour and learning.

Most importantly, reflection made teachers realize that the problems they experienced in teaching could be due to their own shortcomings. Continuous discussions on problematic students, for example, made CA3 realize that her behaviour and teaching style could also lead to her students' behaving problematically in her classroom: "I never thought that I can be the problem… you know sometimes you think that you are the teacher and you are the 'guru' of all" (Interview, C 2). SA8 gained a similar insight: "When (you) listen to them you might realize that it might relate to some of your experiences or your weaknesses maybe in handling a problem" (Interview, C 1). It was SA8's reflections on the ideas and opinions given by other teachers during the discussion of her first dilemma which made her realize that she was autocratic in her approach to teaching and that her students were given very limited autonomy within her classrooms.

When NA10 introduced the problems she faced in teaching sentence construction to her lower proficiency students, community members shared various perspectives on her dilemma. When she reflected on the session, NA10 realized that the problems that her

students faced in writing could be due to her unrealistic expectations, particularly in her choices of teaching materials:

> That I have to [be] realistic. Really acknowledge that they are very weak and even though I have to bring up their competency level within 1 semester, I have to start with more manageable texts. For example, instead of starting with the Intermediate text for Market Leader, I should start with the Elementary or Lower Intermediate texts. (QQ, Week 1, C 2)

Through reflection, NA10 also realized that the problem she faced in managing her students could be the result of her "motherly" approach to teaching. Her disclosure of her problem with Farina, a female student who was often relying on her for help, prompted a discussion on different types of teaching styles and their impact on students' learning. Reflecting on the session made NA10 more aware that spoon-feeding her students and guiding them through every step could have a detrimental effect on their learning. NA10 realized that she was partly to blame for her students' "clingy" behaviour as her motherly, empathetic style could have made her students too dependent on her. This also made her become more aware of the importance of being able to adapt to suit different levels and types of students: "One style is not THE style; we must always be ready to adapt" (QQ, Week 7, C 2).

The practice of reflecting on the sharing within the sessions and on practice made teachers more conscious of their actions, and it subsequently made them become more aware of the various factors influencing the teaching and learning process taking place within their classrooms. Increased awareness or newly gained insights on the process of teaching and learning, however, did not often have traceable impacts on teachers' practice. Further processing of the new awareness, understanding, or insight was found to be important in order for it to impact practice. Without continuous processing, either through reflection or experimentation on practice, new insights, awareness, or understanding was found to have a very minimal impact on teachers' practice.

When a teacher continuously processed information pertaining to a specific issue or a dilemma through reflection, it was observed that some adjustments in teaching or in a teacher's handling of students could be traced back to her practice. ME2 first reflected on her perception of problematic students when she first shared her dilemma about Halem. During the first discussion on Halem, ME2 was exposed to new knowledge on clinical conditions like Asperger's Syndrome and Autism that could affect students' behaviour and hinder their learning. The sharing made ME2 realize that she often blamed her students whenever they behaved problematically in class: "Every time when a student is not performing or not following orders, the first thing (that) came to mind is stupidity or laziness" (QQ, Wk. 7, C 1). Emerging new possibilities involving clinical conditions like the ones mentioned made her realize that "there are more possibilities than just that" (QQ, Wk. 7, C 1). At the end of the first cycle, when she reflected on what she had learnt, she reported learning that that she should not "jump to conclusion" and "maybe give them (her students) the benefit of the doubt" and "look at all the possibilities and never assumed that ... they are lazy or they are stupid" because "…there are always other possibilities" (Interview, C 1). Reflecting on the sharing, she reported becoming more aware of possible causes that could lead to problematic student behaviour: "It just open up your eyes and your mind whenever you come across any difficult students you know then you will be…okay does he have… for example Asperger's, autism that kind of stuff" (Interview, C 1).

ME2 continuously reflected and challenged her beliefs and assumptions about problematic students as issues on problematic students and students with learning difficulties continued to be shared during the sessions in the second cycle. One session that had a lasting impact on ME2 was the discussion on JO7's dilemma regarding Omani students who had difficulties learning English. These students had multiple problems in their writing from basic ones, i.e., problems in capitalization, spelling, transitions, and

indentations to more serious language problems such as organization of ideas in their writing. During discussions on these students, various issues that affected the Omani students' learning were raised, for example, their cultural background, interference of their mother tongue (Arabic), and their attitudes toward learning. Interview recordings between JO7 and some of her Omani students (Ala, Shala, and Laila) also disclosed new information on the way these students learned the English language in Oman:

1. Some high schools in Oman taught the English grammar in Arabic.
2. In some high schools in Oman, English grammar, reading, and speaking skills are taught, but not writing. All three students who were interviewed had never learned how to write essays back in Oman. Writing never went beyond sentence level constructions.
3. In some high schools, grammar was taught in isolation; there was no application.
4. Students from Oman learned English for six years, but the first three years were very basic as they started from getting to know the alphabet. The next three years focused on learning basic general English.

When ME2 reflected on the session, she related it to her experience of teaching students from the Middle East. It made her realize that her Middle Eastern students faced great constraints in their learning of the English language back in their native countries and that their poor writing ability could be due to their 'shaky' foundation:

> One common problem amongst these students is failure to use capital letters and punctuation. Another one would be spelling. It is frustrating when the students do not use capital letters every time they start a sentence when it is an easy thing to do and remember. However, from the recording I realize that it is not as easy as that. Learning roman alphabets which we take for granted in this country is something that they have to do for [a] few years even before they can begin their English lesson. English grammar was taught in Arabic. Surprise! On top of that, written exercises were not a common thing over there. (QQ, Week 9, C 2)

The impact of ME2's continuous reflection on problematic students and students with learning problems was traced back to her classroom. At the end of the second cycle, ME2 had to deal with a student she considered problematic because of her low attendance and poor participation in classroom activities. She reported dealing with the student differently from how she would deal with similar cases in the past. In the past, she reported that she would not even consider listening to her student's side of the story when they missed a deadline. In the past, it would be "an automatic no…no MC (Medical Certificate) you can't do it" (Interview, C 3). Instead, she tried to investigate and understand her student's problems for being absent from class and missing the oral presentation:

> There was one student who had difficulty in doing her presentation so before automatically saying no to her you know so I did ask her okay what's the problem, why didn't you come on that day or this…this...this okay you were not… sick so were you late, why were you not in class that day so I asked all those questions… (Interview, C 2)

At the end of the third cycle, the new perception that ME2 had about problematic students, particularly the ones from the Middle East, remained. In fact, she reported an increase in patience and empathy when dealing with these students:

> With the students from the Middle Eastern, I am more patient in the sense that okay now I understand why there is no full stop, now I understand why there is no capital letters. All this while it's like I have been tearing my hair, it's like thinking why is it so difficult for these people, after full stop just start with the capital letter, what is so difficult about that? You know even a ten year old, a nine year old student can do that. It was so frustrating because it just never, never occurred to me to see their background and how this affects their writing. So now I know why one whole page is one paragraph because they don't have paragraph in their language, there is no full stop… I mean there's no capital letter, no punctuation, now I know. So when I look at that, so when you address it, when you give feedback, then you know what to say to them. All this while, all you can say, why is this wrong, why is this wrong, without knowing that...you know so it's in that sense it's much better because you can understand the students better and you are more patient when it comes to that because before…you just don't know, you just like… oh my God, why is it so difficult for them to write capital letters? (Interview, C 3)

Adjustment to practice was found to relate to teachers' continuous reflection on one similar issue, as in the case of ME2, whose continuous reflection on issues pertaining to problematic students and students with learning difficulties helped her adjust her approach when dealing with such students. Adjustments to teachers' practice were also evident when teachers coupled their reflection with another form of individual action identified, which was experimentation on practice. This is further elaborated in the following section.

5.6.2.5 Experimenting with Knowledge Learnt

In some cases, knowledge gained through the sharing within the community resulted in teachers trying new strategies in their classrooms. Teachers who experimented with new teaching strategies they learned from community sharing were SA8, CA3, LE6, ME2, JO7, and SU9.

Experimentation on practice involved teachers applying concrete strategies to teaching. Two specific examples of application of concrete strategies to teaching were SU9's attempt with 'copywriting' with two of her Omani students and ME2's application of 'copywriting' in her Business English class. SU9's experiment with 'copywriting' did not result in any concrete outcome because it was done on a very small scale and the activity was not monitored as it was done as homework. ME2, however, discovered some interesting aspects of her students' writing when she instructed them to 'copywrite.' ME2 instructed her students to copy a sample of a business letter she prepared to increase her students' awareness of the format and the language used in business writing. She found that none of her students copied the business letter that she gave verbatim. In fact, her analyses of the copied business letters revealed first language interference and other possible fossilized errors in language. These errors were subconsciously transferred when they were copying the business letters. Despite finding these results "interesting," due to

time constraints, ME2 could only experiment with the method once. She related that she "would definitely do it again and again" in her Business classes to find out the real problems faced by her students in business writing (Interview, C 3). JO7 also experimented with 'copywriting.' JO7 found the activity useful as she detected some improvement in her students' spelling, paragraphing, and capitalization. JO7's perception of 'copywriting' improved when others who used 'copywriting' within their classroom also found the activity "useful and helpful" (Interview, C 3). As a result, she reported "incorporating that (copywriting) into my recent classes" (Interview, C 3).

NA10 was also drawn towards the sharing on 'copywriting.' NA10 included the practice of 'copywriting,' which she termed 'imitation exercise,' as the third step in the 13-step activity she designed for the teaching of sentence construction in the coming semester. This suggested the possibility of NA10 experimenting with 'copywriting' in her future practice.

The experiments that SA8 and CA3 carried out with inquiry-based teaching were found to be more extensive in terms of frequency of implementation compared to the experiments done by other teachers. They were also on a larger scale, involving repetitive application of inquiry-based teaching with students from different classes. SU9 also attempted the inquiry-based teaching with her IEP students. However, she did it at a very small scale, trying it only once because she perceived that it did not work:

> Yes and even these questioning which SA8… the inquiry thing I have tried it but as you know IEP… our students' level is lower so it doesn't work very well. There are one or two bright sparks who are too enthusiastic and want to move on but it usually is not very successful… It dampened the others, yes. (Interview, C 2)

Another teacher who experimented with a suggested strategy was LE6, who tried a version of a spelling test suggested to improve her students' spelling. This was conducted at a small scale involving one group of students and only a one-time implementation. Even though LE6 found the outcome of her experiment 'interesting'

(because a Middle Eastern student marked a correctly spelled word as wrong), she was unable to continue experimenting with other spelling activities because of work-related constraints. The activity and the feedback received from the community, however, did make her realize that raising her students' awareness on the importance of getting their basics right was one effort that she could focus on.

During her participation in the TIC, JO7 also shared her experimentation with the technique of interviewing students to understand her Omani students' struggles in learning the English Language. Even though JO7 only experimented with it once, her sharing on the outcome of her experiment triggered an exploratory discussion on the possible reasons for students' struggles in their learning of the English language. This discussion impacted many of the community members quite strongly. It also triggered further exploration by JO7, who planned to video record students' interviews to understand their backgrounds and use these as a source of learning (with students' permission). Throughout their participation in the TIC, AL1, HE5, NA10, and MI4 did not report experimenting with any new knowledge they learned through community sharing.

Teachers' participation within the TIC encouraged teachers to try out new ideas or strategies in teaching. Even though it was found that small scale experiments did not leave a meaningful impact on teaching, teachers did make new discoveries and gained new understanding of various aspects of teaching and learning. They also became more aware of the impact of a new strategy on their students' learning. A more noticeable impact on practice was observed, however, when reflection and experimentation with one teaching strategy was done continuously. This was particularly obvious in SA8's case. To help her solve her dilemma, some community members suggested a reversal in the role she played in her classroom. They suggested that instead of giving her students questions to answer, she should prompted her students to produce a set of questions that

would assist them in their analysis of quotations from the selected text. The feedback received from the community on her practice made her reflect on the rigid role that she played in her classroom. It made her realize that she had always held the role of "a big autocratic kind of teacher like I will tell you what to do and you will do it this way" (Interview, C 1). The feedback that she received from the community also made her reflect on the limited autonomy she gave her students in her classroom:

> Yeah...maybe I undermine them in thinking that like they probably choose something simple and I will not see any learning so that is not true because you can analyze a simple statement and it's still will be an analysis. (Interview, C 1)

These important discoveries realized through reflection which was triggered by the sharing within the community, helped SA8 view her teaching from a new perspective. Continuous reflection on practice, coupled with continuous experimentation with inquiry-based teaching, helped SA8 make changes to her practice, particularly to the activities that she carried out in her 'Theme Study' classes, the role that she played within her classroom, and the level of autonomy that she gave to her students:

> I think you will remember that initally I was the one who came up with the questions, the guiding questions and so much so I think it kind of help me you know to make the students more involved in their learning and then to give them some form of autonomy. (Interview, C 1)

Instead of selecting quotations for students to analyze, SA8 allowed her students to choose any quotation from the given text to be analyzed. She also asked her students to collaborate and form questions about the selected quotation. Students were then asked to share the quotation they had selected, present their questions and show how their questions led to the analysis of the selected quotation. During her students' presentations, SA8 reported playing the role of a clueless student who needed guidance: "…and I am clueless…so you have got to come and explain to me clearly…take me step by step through the analysis..." (Wk. 5, C 1). SA8 reported that her students were able to analyze the quotation since it was the quotation that they truly understood. In the past, SA8

recalled that she often selected "very challenging quotations" (Wk. 5, C 1) and she realized that this might have contributed to the problems her students faced to respond critically to the quotations she selected. During the presentation, she recalled not having to identify irrelevant questions that did not lead to the analysis as students were able to identify these themselves. SA8 stated that the suggested strategy "worked…really well" (Wk. 5, C 1). She also shared her reflection on the reason why she thought the strategy was successful:

> They use something that they were familiar with… they work the process from something that they are familiar with… they build up from something they know really well and when they produced the questions ... they got the process… (Wk. 5, C 1)

In the second cycle, SA8 continued to experiment with the strategy, but this time she adapted it to help a new group of students incorporate their analyses of selected quotations into their writing. To help her students, SA8's students "had to come up with questions that they need to answer…to develop the essay" (Wk. 3, C 2) and these questions would be presented to the class. Collectively, students would then select questions that they did not think would lead to the formation of the thesis statement. SA8 shared with the community how one of the groups responded to the question: "Without justice, courage is weak. Do you agree?" using the inquiry-based method that she had adapted. SA8 shared that her students were able to formulate the thesis statement and the main ideas when responding to the given questions:

> In their group they came up okay with this, "courage is not weak" that means this group took the stand that you know it is not weak in the absence of justice because courage is the catalyst to justice that means even if there is no justice, courage can bring about justice …Okay then the main ideas are...Then again they are supposed to tell us how they are going to come up with the main ideas so use the thesis statement to formulate main ideas or topic sentences for the body paragraph… Ok use the three qualities see they already stated here… people who are steadfast, hopeful, strong… so they are going to take each of these and develop and then they are going to put in the characters from the novel so this is what they did… (Wk. 3, C 2)

SA8 reported an improvement in her students' abilities to respond critically to the task that she gave to them. Her students' work not only showed the thought processes that students had undergone in getting the thesis statement and the main ideas, it also showed, according to SA8, an improvement in the quality of her students' responses to the task given.

When SA8 shared the outcome of the inquiry-based teaching, she continued to reflect on her practice, sharing reasons why she thought the method had worked and why her previous teacher-centred approach had failed. Her continuous reflection and experimentation on practice and the continuous support she received from the teacher community had helped her transform her teaching to be more student-centred:

> I come from this teaching background that I am very teacher oriented. So now after this alright…Probably would be a little bit more you know open to being student oriented, even if the students are weak okay, I try to do that… because for me like… okay everything has to be done right, okay you know all these objectives have to be met, so okay let's do it this way and it's always very teacher… very rigid probably… I feel… when someone said, "well, let the students do it, why don't you… let the students do it'. It never occurred to me...okay… so new habit would be like more… I'll be a little bit more... not a little bit more… a lot more open to the students being more involved… and to you know bounce it off them first and then may be guidance can come in. So previously it was the other way round, so now like okay you can do this, okay let's build up on that skills, if not, then I will guide you and then we build up. So I guess that's the new habit that I have acquired. (Interview, C 3)

The use of inquiry-based teaching within her classroom had become SA8's new teaching habit as she reported using the same method in her other language classrooms even after her participation with the community had ended. For example, she shared with the researcher how she had improvised the method further to scaffold her Arts and Design students' writing of summaries of texts on art. As her students were of lower proficiency, she had even scaffolded her students' learning further by teaching them the types of questions that they could ask when analysing the content of a given text that they needed to summarize. (Her approach to the teaching of summary writing using the inquiry-based method to Art and Design students was presented at an international conference). She

also shared evidence with the researcher of how she used inquiry-based teaching to help her Psychology students analyze and understand the content of a text on psychology/human behaviour prior to their reaction-paper writing.

SA8 was not the only participant who went through the process of reflection and experimentation on practice as CA3 also went through it. As a result of this process, CA3 also made some adjustment to the way she taught academic writing. SA8's sharing on her successful attempts with inquiry-based teaching prompted CA3 to design and introduce inquiry-based tasks in her classrooms. In the past, she recalled that her writing class "was more like writing… and it was not fun" and she would "be marking (her students' work) individually" and she would "explain it to them face-to-face" (Interview, C 2). With inquiry-based teaching, CA3 prompted her students to work in groups to produce outlines of their argumentative essays. These outlines were then presented to the class and others would be asked to critique and query the content of the outlines. When CA3 reflected on the outcome of the inquiry-based task she carried out in her academic writing class for the Psychology students, she shared that:

> It's just that the questioning ... I thought they… they learnt on their own like this is the first time I was not giving input… usually it's me talking all the time but this time around they spoke about it and they thought about it and…and I could see clearly that learning took place. (Interview, C 2)

CA3 shared that her students were able to comment and question each other's outlines and they even suggested ways to improve each other's writing. She also noticed that students became analytical when they questioned and evaluated each other's outlines.

CA3 continued to experiment with the method, trying it out in another academic writing class, this time with Accounting and Finance (BAF) students. She, however, found that some of her BAF students did not respond to the task as enthusiastically as most of her Psychology students. Reflecting on what was shared during the discussion on the conflicting outcome, CA3 identified various factors that impacted learning within the

classroom, for example, “students’ attitude, behavior, personality, present feelings and motivation level” (QQ, Wk. 6, C 2).

CA3 continued using inquiry-based tasks to teach another type of writing, which was business letter writing. CA3 reported the active role that her Psychology students played in their own learning when they analyzed and queried the content of business letters produced and presented. She also shared that her students’ analyses showed that they were able to relate to the 7Cs (the seven main characteristics of business writing: Correctness, Conciseness, Completeness, Coherence, Courtesy, Consideration, and Concreteness), which she had taught earlier. Not only that, they were also able to point out mistakes in the styles of writing, grammar, and the content of the business letters presented. For CA3, successful attempts reported by SA8 and repeated ‘successful’ attempts in her own classroom, particularly with the Psychology students, encouraged her to employ a more student-centred approach for the teaching of academic writing where students took a central role in their own learning: “I won’t stop trying this because it somehow has become my habit already… yes… I will continue this…” (Interview, C 2).

5.7 Analytic Summary

Community members’ collective actions showed supportiveness toward both the protocol and each other, and this was found to be vital to the processes within the TIC. Collective supportive actions provided valuable instructional support as they promoted the sharing and the generation of various types of knowledge within the TIC. These collaborative actions also provided teachers with effective supports, which made the TIC a safe platform for sharing and disclosure. Teachers’ criticality of the sharing within the teacher community was also vital to the processes identified within it as it led to the emergence of multiple perspectives, views, and opinions on dilemmas shared or issues discussed. This was significant in support of individual-level processes, particularly in

triggering reflection and re-examination of one's practice. It was also found that criticality were generally perceived positively by community members as expressions of differing opinions and perspectives were often buffered by positive, cautious, and tentative remarks.

Actions of individual teachers involved their participation during community meetings and their individual processing of knowledge learnt. One of the identified individual teacher's actions was the sharing of problems in practice. It was found teachers who shared dilemmas with the community would disclose more of their practice than those who did not. Teachers who did not share dilemmas but only took part in the discussion of others' dilemmas reported an increased understanding of the complexity and various aspects of the teaching and learning process. However, such participation often did not lead to a better understanding of their practice. It was found that it was only when teachers disclosed their problems in practice that they discovered flaws or gaps in their teaching or in their perception/management of their students. Sharing one's practice opened it to scrutiny, which resulted in the emergence of multiple perspectives, views, and opinions of one's practice. This often led to a better understanding of the reasons why an employed approach did not work or why students struggled in one's class or behaved in a certain way. This was found to be an important pathway to modification or adjustment to practice.

Another identified individual teachers' action was teachers' reflection on practice. Teachers reflected on their practice at varying depth resulting in varied impacts on teachers and their practice. It was found that continuity and depth of reflection had different impacts on teachers and their practice. Superficial reflections often did not lead to any new discoveries about teachers' own practice. They often resulted in an increased understanding of certain aspects of teaching and learning, but they very rarely led to any meaningful adjustment to teachers' practice or perception of students, teaching, and

learning. It was also found that continuous reflection on one similar issue would result in some adjustments in teachers' perceptions of their teaching or the treatment of their students. This occurred when teachers were being continuously exposed to a single issue or dilemma.

Reflection was found to be an important element in teacher learning within the TIC. Through reflection, teachers gained new holistic understanding about students, teaching, and learning. New holistic understandings on various aspects of teaching and learning appeared to have made teachers think about their own practices, particularly on the effectiveness of the teaching approaches and strategies they had employed, for example, in the teaching of spelling, sentence construction, essay writing, and in the way they handled students' within their classrooms. It also made teachers challenge their past perceptions about students and increased their empathy towards them.

Another individual teacher's action identified was experimentation on practice. The 'size' and frequency of teachers' experiments on practice varied. Some teachers carried out experiments with a newly learnt strategy at a small scale involving a group of students and only one-time implementation. Small experimentations on practice may lead to an increase in awareness on some aspects of teaching and learning, but they often did not leave a traceable impact on practice. Continuous experimentation with a specific teaching strategy involving different classrooms with different students, however, was found to be more impactful. Continuous experimentation with a specific teaching strategy often resulted in the accumulation of an abundance of knowledge about a teacher's practice. When the gathered knowledge was further processed within the community and was continuously reflected upon by the teacher, meaningful adjustments became noticeable in teachers' practice.

Two other individual teacher's actions identified were focusing on solutions and designing future language activities. There were times when teachers became more

focused on finding solutions than exploring problems shared. Despite this, it was found that other teachers within the community would often pick up on the discussion again to explore various aspects of the problems discussed. Taking part in discussions within the TIC also prompted teachers to design future language activities. The impact of these designed activities was not obvious. They could perhaps impact teachers' future practice.

Community support was found to be a vital element in the process of teacher learning within the TIC as feedback from community members triggered teachers' continuous reflection and supported teachers' efforts in improving practice. ME2's meaningful change in her perception of problematic students and students with learning difficulties was the result of continuous collective sharing on issues pertaining to such students and multiple in-depth discussions on the various reasons behind students' problematic behaviour and learning difficulties. Similarly, teachers' adjustments to their teaching were supported by the teacher community. SA8's adjustment to the way she improved her students' criticality in writing was due to the varied and refined suggestions she received from group members, which triggered her reflection on the (in)effectiveness of her old practice. CA3's modification to the way she approached her teaching of academic writing was triggered by the positive input she received on the inquiry-based teaching which was shared by SA8.

CHAPTER 6: DISCUSSION, IMPLICATIONS, AND RECOMMENDATIONS

6.1 Overview

Various efforts carried out to improve the quality of teaching at Malaysian universities did not show conclusive results. This qualitative case study was conducted to explore the feasibility of a community-based staff development effort to improve university teachers' instructional practice. An experimental staff development project, an inquiry community, was formed at PIU, a private higher education institution in Malaysia to promote university teacher learning and to trigger teacher change. The processes within the teacher inquiry community focused on active collaboration, inquiry, and reflection, and discussions within it were problem-oriented, exploratory, and data-driven. These 'important ingredients,' according to many experts and past studies, are vital to teacher learning (Ball & Cohen, 1999; Cochran-Smith & Lytle, 2001).

To explore the potential of the TIC, the study attempted to understand the processes occurring within the community, the impact of various factors on university teacher learning, and the effects of participation on university teachers and their practice. To do so, the study, which adopted a situated perspective on learning, analyzed various aspects of university teacher interactions, tools, and contexts. Two different units were analyzed and investigated: the community and the individual university teachers.

Four main questions provided the scope and guided the study:

1) How was knowledge generated and processed within the inquiry community?
2) How did tools impact knowledge generation and processing within the inquiry community?
3) What were the contextual factors that hinder or promote the processes within the inquiry community?

4) How did university teachers' participation in the inquiry community affect them and their practice?

Data for the study were derived from multiple sources: observations, interviews, qualitative questionnaires, classroom artifacts, and teacher interactions during each teacher community meeting. As a result, various perspectives on the case were gathered and a new understanding was obtained on the following: 1) how knowledge was constructed and generated within the TIC; 2) how knowledge constructed was processed and internalized by the individual teachers; and 3) how factors found within the context of the individual university teacher, the TIC, and their workplace influenced the processes identified, resulting in a range of implications on the university teachers and their practice.

This chapter presents a summary and discussions of the research findings, and implications and recommendations for future research.

6.2 Summary of Findings

The study identified several main findings pertaining to the processes that the university teachers underwent as a community and individually to generate, construct and process knowledge; the effects of tools and contexts on these processes; and the effects of university teachers' participation in the TIC on the teachers and their practice. This part of the chapter addresses the research questions in this study.

6.2.1 Processes within the TIC

The study finds distinctive processes occurring at the community level (group processes) and with the individual university teachers (individual processes) (View Figure 6.1 for the process of university teacher learning in the TIC). It also identifies a complex and interconnecting relationship between the processes occurring at group and

individual levels. The process of knowledge generation and construction began within the teacher community through various group processes of collegial collective inquiry and reflection, and negotiation and refinement of emerging knowledge. These collective processes were supported by 1) the various tools used and found within the TIC, such as the protocol, the classroom artifacts, and external sources (i.e., journal articles); and 2) the members of the TIC. As a result, an abundance of knowledge-*of*, -*in*, and *for*-practice were generated. Knowledge generated within the community was further processed individually by teachers through reflection, a process assisted by the qualitative questionnaire. Through this process, the university teachers connected the sharing within the community to their own instructional practice, and as a result, they became selective of the knowledge that they would process further. Selectivity of knowledge was found to be heavily influenced by: University teachers' perceived immediate teaching contexts (e.g., students (type, proficiency level), skills/components taught, and the objective of their language program); beliefs; and past teaching experiences, (relating to aspects of feasibility, practicality, and suitability).

Selected knowledge would then be processed by the teachers through continuous reflection or/and through experimentation on practice. Teachers were found to be processing information that they perceived as relevant to their teaching contexts more deeply than information which they perceived as irrelevant. The impact of their participation in the TIC on their practice was found to be strongly related to the depth and continuity of individual teachers' processing of knowledge learnt. It was found that depth and continuity of reflection and/or experimentation on practice influenced teacher learning and change. Shallow processing of knowledge, for example, superficial reflection on knowledge learnt and/or a single experiment with a suggested teaching strategy within a teacher's classroom had minimal impact on teachers and their practice.

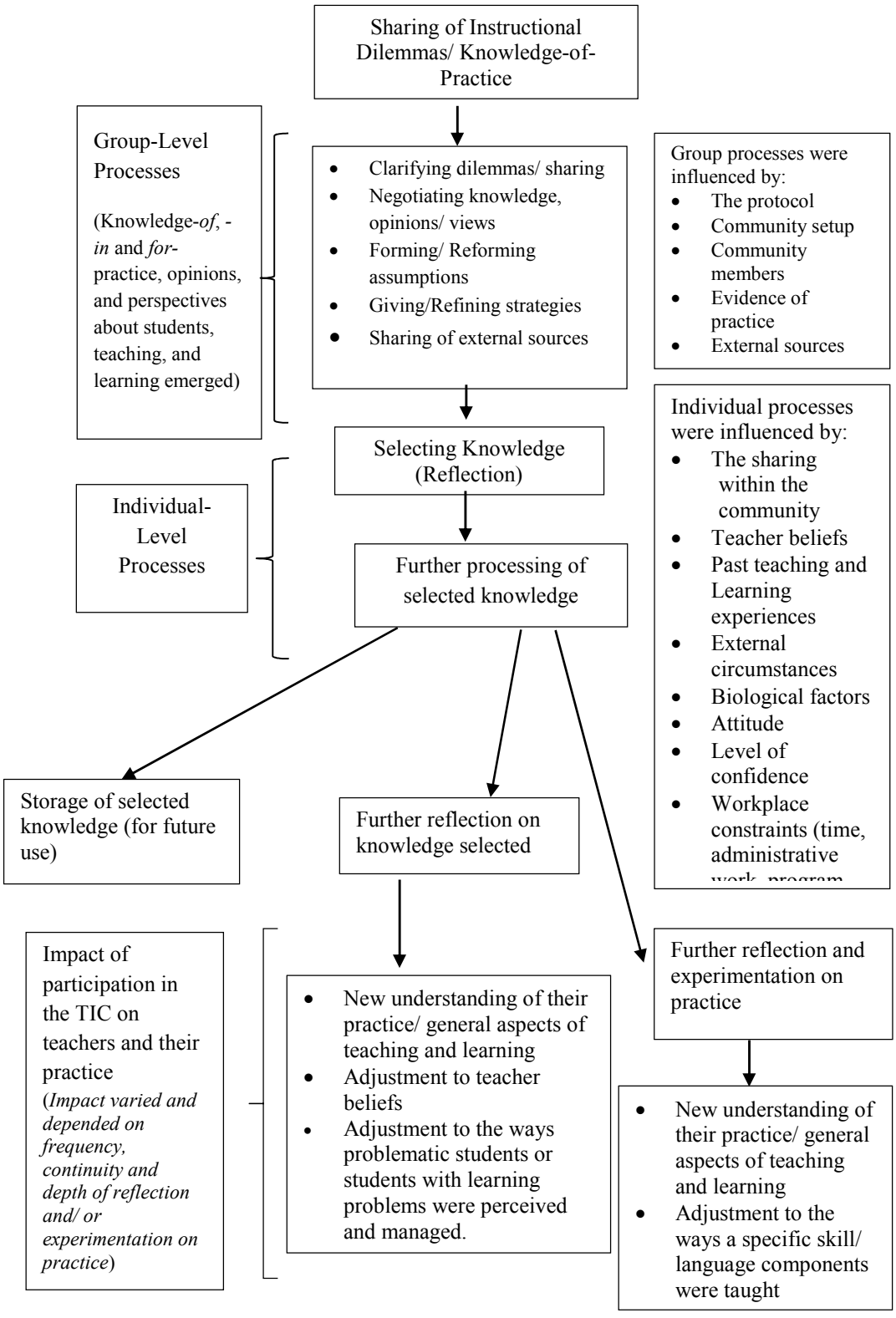

Figure 6.1: The Process of Teacher Learning in the TIC

Teachers may gain a new insight on a specific dilemma or a new understanding on an aspect of teaching or learning, but often this shallow processing of knowledge did not result in any noticeable changes on teachers and their practice. A meaningful change in practice was observed only when the university teachers were actively engaged in the individual processes by going through concrete experiences and carrying out a series of active experiments on practice, and this process was extensively and continuously supported by group and individual reflection.

Some selected knowledge, however, was not processed further but stored for future usage. Each teacher's participation within the TIC was affected by different factors, existing within the context of the TIC, the university teachers themselves and their workplaces, resulting in impacts that were unique to each individual university teacher.

6.2.2 Factors which Impacted Group-level Processes

The study finds that there were many positive factors identified within the TIC which supported group processes. The setup of the TIC itself contributed positively to the processes occurring at the group level. Being a voluntary staff development programme, the TIC created a casual and informal learning environment for the teachers. This had a positive impact on disclosures on practice and sharing of knowledge. The membership of the TIC being exclusive only for the members created a safe environment, which also encouraged sharing. Being a form of staff development carried out over an extended period also had a positive impact on group processes as this gave teachers time to bond. The university teachers became genuinely caring of each other, which further encouraged the sharing of practices, knowledge, and experiences.

Tools identified within the TIC also had positive impacts on group processes. One of the tools which had a positive effect on group processes was the protocol used. It gave structure to the informal interactions taking place within the teacher community, keeping

it, most of the time, within boundaries. The protocol helped teachers get back on track, particularly when discussions became too focused on finding solutions or went off-tangent. It also played an instrumental role in binding the teachers together, keeping the group focused towards achieving one similar goal, which was to improve their instructional practice. Most importantly, the protocol, which was problem-oriented and inquiry-based, triggered the sharing of current problems localized within teachers' practice, encouraged collective reflection on practice, and made the discussions within the inquiry community investigative and exploratory. It was through the cycle promoted by the protocol that helped generate an abundance of knowledge-*of*-practice, knowledge which emanated from teachers' classrooms, and knowledge-*in*-practice, which emerged from teachers' collective reflection on practice, to be shared among community members.

Classroom artifacts or evidence of practice shared by the university teachers were also supportive of group processes as they encouraged the generation and the sharing of knowledge-*of*-practice and positively impacted interactions within the community. These artifacts, which came in varied forms, contained valuable knowledge of university teachers' practice, which were catalysts to deeper discussions on dilemmas. They enabled teachers to engage in discussions on localized problems, which consequently led to the sharing of narratives and suggestions relevant to teachers' practice. They also increased the transparency of the instructional dilemmas shared. This provided the university teachers with a real 'snapshot' of the problems discussed, giving substance to the discussions and making them focused, meaningful, and concrete.

Another positive factor found within the TIC were the external sources, for example, journal and web articles, shared by teachers out of their own initiative. These sources encouraged the sharing of knowledge-*for*-practice. They gave the university teachers a formal and researched perspective on some of the teaching strategies discussed within the teacher community. This improved their knowledge on the underlying theories

governing the design and use of specific teaching strategies. It also gave them concrete evidence on the effectiveness of the strategies discussed. External sources were also supportive of group processes because some of the information found within these sources triangulated and validated the discussions teachers had on practice, making teacher learning experiences within the TIC concrete and valid.

The other factor within the TIC which was found to be supportive of group processes was the teachers themselves. Learning within the TIC was supported by community members' diversity, empathy, open-mindedness, willingness to share, professionalism, and criticality. These teachers enabled the discussions taking place within the teacher community to be empathetic, supportive, focused, and safe. This had a positive effect on the disclosures of problematic features of teaching and the sharing of teaching and learning experiences. Having university teachers with a diversified educational, teaching, and work background, who were critical of each other's sharing, also had a positive impact on group processes as they brought varying narratives and opinions on the issues discussed, which enabled teachers to view teaching from multiple perspectives.

There were also hindering factors within the TIC which impacted group processes. The protocol, despite its positive effects on group processes, was found to be inadequate at addressing gaps in the university teachers' knowledge. The protocol encouraged the sharing of their practical knowledge (which was generated through the process of collective reflection on practice) to support discussions within the TIC. Most of the time, this was not problematic. In fact, teachers' practical knowledge supported discussions on instructional dilemmas and helped teachers understand and solve them. Relying only on practical knowledge to support discussions was observed to be problematic when they had limited knowledge about the issues discussed. This was particularly obvious during discussions on foreign/international students. As there were gaps in university teachers'

knowledge about these students, they relied on their experiences with them and their perceptions they had about them. This, at times, resulted in the sharing of stereotypes that teachers formed about these students, which led to the formation of wrong assumptions about them. Another factor which impacted interactions and, thus, group processes was the generality and obscurity of instructional dilemmas shared. Discussions on a dilemma that was vague and unclear were found to be wide-ranging, generic, and superficial, which often restricted teachers' discussion on it. In such cases, discussion on it became mere guesswork or revolved around the sharing of tips or common sense from which teachers gained little benefit. This was prevalent when there was very little information revealed to the community about the dilemma, either due to confidentiality issues or the dilemma involved an area unfamiliar to them. In one particular instance, however, it was observed that the obscurity of a dilemma encouraged exploration. This was the case when a lot of information was revealed about the dilemma but it still remained a mystery to the teachers. This was also observed when the obscure dilemma revolved around an issue that was familiar to the teachers, which enabled them to contribute to the sharing.

Instructional dilemmas presented together with planned strategies that teachers had designed were also found to have a limiting effect on teacher interactions and, thus, knowledge generation. When this occurred, teachers would not attempt to understand the dilemma but would divert to understanding the planned strategies and how to improve them. University teachers' exploration on the dilemma became stunted and this affected their understanding of it.

6.2.3 Factors which Impacted Individual- level Processes

Individual-level processes were influenced by various factors found within the contexts of the TIC, teachers' workplaces, and the individual teachers. Within the context of the TIC, it was found that community members were supportive of individual

university teachers' learning. They were so when they 1) shared their opinions, assumptions and teaching and personal experiences to support discussions on dilemmas, 2) negotiated knowledge shared and assumptions formed, and 3) shared outcomes of experimentation on practice and external sources to support the discussion on teaching strategies within the TIC. The varied and continuous input received from the TIC triggered individual reflection and increased awareness on 1) general aspects of teaching and learning, 2) flaws in their own practice, and 3) misperceptions that they had about students and their learning. The sharing within the TIC also triggered teachers' experimentation on practice as it supplied the university teachers with ideas and strategies to resolve their instructional problems and to improve teaching.

The content of the discussions within the TIC also had an impact on university teachers' individual reflections. It was found that when an issue or a dilemma was continuously raised and discussed, they were able to reflect on it continuously. This continuous reflection triggered by the sharing within the community, resulted in discoveries of flawed perceptions about students and their learning and their new awareness of the complexity of the teaching and learning process. University teachers' individual processes were also supported by the protocol and the reflective tool used, which was a qualitative questionnaire. The protocol encouraged teachers to experiment with new knowledge acquired from community sharing, to collect evidence and data through experimentation, and to share outcomes of these experiments with the teacher community. The qualitative questionnaires, on the other hand, helped teachers process and internalize knowledge from the sharing by making them reflect on it and relate it to their practice.

Not all factors found within the context of the teacher community were supportive of individual university teacher learning. One factor that had a negative impact on individual processes was university teachers' diversified immediate teaching needs and

contexts. As they were teaching different language skills and components to students who were at different levels of proficiency, instructional problems that they shared were also different and varied. As a result, the sharing within the TIC at times became relevant to only some of the university teachers. This had an impact on individual-level processing, particularly during the selection process.

University teachers' individual processing of knowledge learnt was also influenced by factors found within the contexts of the individual teachers. Teacher beliefs, attitudes towards learning and change, past teaching and learning experiences, confidence levels, external circumstances, biological factors, and skills to reflect on practice influenced the depth and continuity of their processing of knowledge learnt through community sharing. This resulted in varying impact on the university teachers and their practice. Their set beliefs on approaches or strategies that worked and/or would not work hindered their individual learning as it discouraged them from trying new approaches or strategies in their classrooms. University teachers' past teaching experience also had a negative effect on their individual processes of knowledge learnt. A university teacher's extensive past teaching experience, for example, affected her receptiveness of most of the sharing within the community. New university teachers with limited teaching experience, on the other hand, reported having lack of confidence at making changes to their practice. University teachers' external circumstances or biological factors also affected their individual processing of knowledge learnt as these two factors affected teachers' motivation to learn. Two other hindering factors within the contexts of the individual teachers were past learning experiences and lack of skills to reflect on practice. A university teacher's past learning experience influenced the current approach she applied to teaching and reduced her flexibility towards changing, even when it was discovered that her current approach to teaching may not benefit her students' learning and could be one of the root causes of her instructional problem. A university teacher's lack of skills

to reflect on practice also hindered her learning as superficial reflection did not result in meaningful internalization of knowledge learnt and changes to her practice.

University teachers who displayed positive attitudes towards learning and change, had high levels of confidence, and were consistently proactive at trying to improve their practice reported a better understanding of their practice and made more meaningful adjustments to it than others. This was because these teachers would continuously place their practice under scrutiny and tried new strategies in their classrooms to improve their teaching and their students' learning. On the other hand, university teachers who were not confident about making changes to their practice, had low motivation to reflect and experiment with new strategies in their classrooms, and were unwilling to negotiate their beliefs about teaching and learning would make the least modifications to their practice, or none at all. The internal factors identified within the individual teachers and their external circumstances influenced the amount of effort they put into processing knowledge learnt, and this influenced the impact on them and their practice.

Teachers' individual processes of knowledge learnt were also influenced by many hindering factors found within their workplaces, for example, time and space for learning, administrative work, shared and sole responsibilities, program objectives, teaching allocation, and imposed systems. One main factor within the context of university teachers' workplaces which hindered individual-level processes was lack of time and space for teacher learning. This was particularly detrimental for new university teachers as it affected their confidence in trying new approaches or strategies in teaching, forcing them to either store new knowledge learnt or carry out experiments on a small scale. New university teachers who had low confidence were also affected by shared responsibilities as they would prefer to stay on the 'path' set by others. A university teacher's individual learning was also hindered by challenging program objectives and sole responsibilities of running a language program as these two factors influenced what she chose to process

further. Allocating university teachers with new groups of students with diversified background to teach each semester also restricted sustainability of their individual learning as they were not able to apply what they had learnt in one cycle to newly assigned classes in the following cycle because new students with diverse backgrounds often came with new challenges to overcome. A system imposed within a language program also influenced a teacher's individual learning as it restricted what she could share with the community.

6.2.4 Effects of University Teachers' Participation on Them and Their Practice

University teachers' participation in the TIC affected them and their instructional practice in various ways. All of the university teachers reported that their participation within the community improved their knowledge in various aspects of teaching and learning. Some also reported gaining new insights into instructional dilemmas shared, factors impacting students' learning and behaviours, and impact of different strategies on teaching and learning. Some reported making meaningful changes to their instructional practice. Even though not all of the university teachers made changes to their practice as a result of their participation within the TIC, it was found that they were at varying stages of learning and discovery.

The most evident impact of university teachers' participation within the TIC was the adjustments that some of the teachers made in their teaching of concrete skills, i.e., the writing of argumentative essays and in improving students' learning and critical thinking. The instructional modifications that university teachers made in their practice were traced within their oral narratives and also the classroom artifacts shared. Another meaningful adjustment by another university teacher was the change she reported in her perception of problematic students or students with learning problems, particularly the ones from the Middle East. This change in perception was traced to her practice through

a reported account where she related changes to the ways she handled a problematic student within her classroom. In both the cases mentioned, modifications to university teachers' practice and beliefs were due to teachers' continuous reflection and/or experimentation on practice. Without the support from the protocol and the community members, such changes might not have occurred. This was because collaborative sharing had introduced the teachers to a new method in teaching and supported teachers' reflection and experimentation on practice. Furthermore, continuous sharing on various issues on problematic students or students with learning difficulties increased a university teacher's awareness of the various causes that influenced students' behaviour or learning. This triggered doubt in her old beliefs and resulted in some modification in the way she handled a problematic student in her classroom.

The study finds that many elements within the TIC (inquiry, collaboration, reflection, problem-orientation, data-driven/evidence-based interaction, protocol-driven process), which many experts believe to be crucial to teacher learning, were indeed important in the process of knowledge generation and in inducing teacher change. The study also finds that the TIC has the potential to be a worthwhile staff development project because university teachers' participation in the TIC resulted in positive outcomes on some university teachers and their practice: They not only learned an abundance of new knowledge, they also learned to reflect, question, and carry out investigations on their practice, skills which many experts believe are vital in teacher learning. Most importantly, some university teachers made meaningful adjustments to their general perceptions/beliefs about students, teaching and learning, and to their practice. Even though this was not applicable to all university teachers within the TIC due to various reasons, the findings in this study show that inducing teacher change and improving practice are possible outcomes of teachers' participation in a TIC. The study also finds that the TIC model of teacher learning employed worked within a local and a university

setting. However, the study finds that for a TIC to function more effectively, various contextual factors within the teachers, workplaces, and the TIC need to be identified and addressed.

The next part of this chapter discusses the implications of the study on the body of knowledge and on community-based staff development like the TIC, in higher education.

6.3 Implications on Community-Based Staff Development in Higher Education

The findings of the current study have important theoretical implications for the area of teacher learning within community-based staff development efforts like the TIC. The findings of the study also have some implications on policies governing staff development in higher education and management of community-based staff development in higher education, particularly on the provision of supportive teacher learning environments for similar endeavours.

6.3.1 Theoretical Implications

The study has theoretical implications as it extends understanding and knowledge in the following areas: 1) the needs for continuous inquiry, collaboration, reflection and experimentation on practice in teacher learning; 2) the importance of tools in teacher learning; 3) the needs for varied input; 4) the impact of diversity on knowledge processing; 5) the importance of having the 'right' people in the TIC; and 6) the impact of various contextual factors on teacher learning within the TIC.

6.3.1.1 Continuity in Inquiry, Collaboration, Reflection and Experimentation on Practice are Vital to the Process of Teacher Learning within a TIC

The current study finds that the vital elements that could trigger knowledge generation and construction in the process of teacher learning within an inquiry

community are continuous inquiry, collaboration, reflection, and experimentation on practice. The study discovers that inquiry is an essential tool which promotes knowledge generation. Furthermore, without continuous inquiry, exploration on practice would be limited and this would have stunted knowledge generation within the TIC. For inquiry to be effective, however, continuous support from a group of peers was found to be vital. The inquiry process was effective as the community members were willing to share. It was this collective support which resulted in the co-construction of knowledge and the merging of ideas, opinions, and approaches on practice resulting in varied interpretations and perspectives of dilemmas, teaching, and learning. These triggered reconsideration or reconstruction of teachers' beliefs, which consequently resulted in some adjustments to some of the university teachers' beliefs and practice. Without such support, it would have been difficult for the university teachers to perceive their teaching through a different lens, and this would have restricted their ability in detecting or understanding their flaws in teaching.

The study also finds that reflection on practice is an essential feature of the process of teacher learning within the TIC since without it no meaningful learning or change occurred. Reflection was found to be vital to individual teachers' construction of knowledge as it triggered selection and application or adjustments of different knowledge and perspectives to teachers' own unique teaching contexts. Without reflection, participation in the TIC would be meaningless.

Furthermore, the study finds that reflection that impacts teachers needed to have depth and continuity. Superficial reflection was found to be a fruitless effort. Only when the university teachers were continuously reflecting on a dilemma or a specific issue on teaching were they able to make a serious evaluation of their beliefs and their practice. This reflective process was further promoted by collaborative inquiry, which induced

scepticism over old practices or beliefs, provoking teachers to make adjustments to their beliefs and their practice.

The study finds that adult learners learn best by doing. University teachers who made meaningful changes to their practice were found to be the ones who carried out continuous experimentation with a specific teaching strategy acquired through community sharing. When they coupled this process with continuous individual reflection, and when it received continuous support from community members, it was found that university teachers were able to make important comparisons between old and new practices. This helped them gain new understanding of why their old practices did not work. When teachers came to this new realization and the changes in practice achieved the desired effects, the new implemented action became a new teaching habit for the teachers. The study finds that meaningful teacher learning required teachers to be actively engaged in individual-level processes by going through concrete experiences and carrying out active experimentation on practice (Illeris, 2007; Knowles, 1980) and this process was extensively and continuously supported by individual reflection (Brookfield, 1985; Schon, 1983) and peers (Bill & Cohen, 1999; Nicholls, 2001). It also demonstrates the necessity for inquiry (Bill & Cohen, 1999) and collaboration (Nicholls, 2001). It extends findings in the area by suggesting the importance of having all of these vital elements occurring continuously as part of the learning processes in the TIC for learning and changes in practice to occur.

These findings add understanding to the importance of sustainability in staff development. They also show that inducing teacher change is a complex process; it requires a prolonged period of teacher involvement within staff development and continuous support from peers. The findings of the study thus raise further doubt over short-term workshops and periodic training. This is because in such staff development,

there is no continuity in the process of learning. Failure of periodic, one-off staff development in inducing teacher learning and teacher change is thus understandable.

The study also shows that meaningful teacher learning requires it to occur beyond the context of the staff development. University teachers have to apply and test what they have learnt from staff development in their classrooms, and this has to occur repetitively. In other words, this study suggests that teacher learning within such staff development as the TIC would only be effective if supportive elements are continuously present within the teacher community and the teachers' workplace where testing of knowledge takes place.

6.3.1.2 Tools are Vital to Support Teacher Learning

The current study adds substantially to the understanding of the use of tools and their impact on teacher learning within TICs. Tools that were introduced (the protocol, the qualitative questionnaire) and brought into the community by the university teachers (classroom artifacts, external sources) served significant functions within the TIC. This aspect of the study fully supports findings from Crockett (2002), who advanced the importance of various learning tools in enhancing teacher learning within a TIC.

The study finds that the protocol employed brought the needed control and structure to the informal interactions university teachers were carrying out on practice. It was also a catalyst to deeper discussions on dilemmas, knowledge sharing, and knowledge processing which had an impact on practice. This confirms the findings of a study by Ermeling (2010) on the central role of inquiry-focused and problem-based protocols in promoting knowledge sharing and encouraging teacher change. The study, however, extends understanding on the limited function of a protocol, such as the one employed in this study, in bridging knowledge gaps that university teachers have about students, their learning, and some aspects of teaching. This study suggests that the

protocol employed for staff development like the TIC should be able to address areas in which teachers have limited knowledge. In other words, it should not only support the generation and sharing of knowledge-*of* (as a result of inquiry and problematization of practice) and *in*-practice (practical knowledge which emerged through collective reflection on practice) but also encourage the inclusion of external sources containing knowledge-*for*-practice (formal, factual, researched knowledge) or other varied input (students' perspectives and voices) to support learning and bring in different lenses to teachers' discussions. This will be further discussed in the following part of this chapter.

The findings of this study also point out the importance of reflective tools to assist learning as previous studies have advocated (e.g., Roblin & Margalef, 2013; Sinnema, Sewell, & Milligan, 2011; So, 2013; Tillema & Westhuizen, 2006; Zellermayer & Tabak, 2006). It also extends understanding on the use of a qualitative questionnaires as reflective tools to assist teachers' individual reflection. This study shows that qualitative questionnaires in which teachers were given specific open-ended questions to respond to assisted and supported some teachers' individual reflection. In past research on teacher learning within TICs, reflective tools that were often reportedly being used to promote reflection were teacher journals (Roblin & Margalef, 2013; Sinnema, Sewell, & Milligan, 2011) or diaries. This study shows that qualitative questionnaires could be alternative reflective tools to assist teachers in their learning within TICs.

This study also finds that classroom artifacts or evidence of practice shared were important in supporting teacher learning within the TIC, which was a similar conclusion drawn from a study conducted by Sinnema et al. (2011) in their study on evidence-informed inquiry for improving teaching and learning. The sharing of various materials which emanated from teachers' practice kept the discussions focused and helped induce realistic and relevant critical discussions. Furthermore, it helped contextualize teachers' teaching and problems in practice, giving community members' insider knowledge that

was often obscure to others. It was also found that the continuous sharing of classroom artifacts as a result of teachers' continuous experimentation on practice with a specific teaching strategy enabled the detection of adjustments teachers made in their practice.

6.3.1.3 Varied Input is Vital to Support Teacher Learning

The study finds that university teachers' over-reliance on the knowledge that they had about students, teaching and learning during discussions on instructional dilemmas could have detrimental effects on knowledge construction within the TIC. It was found that there were gaps in teachers' knowledge, and this resulted in the sharing of stereotypes and the formation of wrong assumptions. This was particularly obvious when foreign students and their problems in learning were the centre of discussion. It was observed that university teachers gained a better understanding of students and their learning problems when students' voices or perspectives about their backgrounds and learning was included in teachers' discussions. Bringing a different lens into the discussion enabled university teachers to see learning from the perspectives of the students. This increased their understanding of the specific reasons as to why some students struggled in their learning of English, even in grasping skills that were perceived as elementary, such as spelling and paragraphing. These findings suggest the inclusion of students' perspectives or voices into teachers' discussions as vital to the processes within the TIC. Doing so would enable teachers to view dilemmas through different lenses: self, peers, and students. This would increase the validity of the assumptions formed and the learning points derived from teachers' reflection on them.

It was also observed that the learning of specific teaching strategies became more concrete when journal or web articles were brought into the TIC by community members. These articles brought verified and researched accounts, and also experts' perspectives into university teachers' discussions on teaching strategies and dilemmas, extending it

beyond their current knowledge. Teacher learning became more concrete with the inclusion of these external sources because knowledge emerging from discussion on the content of the journals was built upon the knowledge-*of*-practice that teachers gathered from previous discussions. Bringing the theoretical lens into the discussions verified knowledge-*of*- and -*in*- practice constructed and shared within the TIC or contradicted the assumptions university teachers had constructed earlier. The sharing of such sources in the TIC was found to be perceived positively by all the participants, regardless of their experience in teaching. This aspect of the study confirms the findings by So (2013, p. 195), who found that participants in a study on a TIC desired "specialized information related to the inquiry topic."

This study extends understanding of the importance of varied input for teacher learning to substantiate and triangulate teachers' discussions. It also confirms Cordingley, Bell, and Thomason's (2004) research, which highlights the importance of varied input to support teacher learning within collaborative staff development. Findings in this study also support Lieberman's view on the need to keep "a balance between inside (the experiential knowledge of teachers, i.e., knowledge-*of* and *in*-practice) and outside knowledge" (knowledge created by research and conceptualization, i.e., knowledge-for-practice) within teacher collaborative networks (2004, p. 223).

6.3.1.4 Teacher Diversity has an Impact on Teacher Learning

The study finds that teachers' past teaching and learning experiences, beliefs, and their immediate teaching needs influenced what university teachers selected to process. It was found that community members were often looking for immediate solutions to their problems or were trying to understand issues relating to teaching and learning which were pertinent in their current practice. The probability of knowledge to be selected and processed further was found to be higher if knowledge shared was relevant to teachers'

current needs and teaching contexts. University teachers were also found to be more involved in discussions on issues pertinent to their own contexts and when they contained knowledge that could resolve dilemmas or issues that existed within their current teaching. On the other hand, they struggled to take part in discussions that did not concern them. They were also found to be processing knowledge within such sharing at a very superficial level or not at all. These findings support Guskey's (2003) observation that teachers are generally pragmatic. They also support the findings made by So (2013, p. 195), who recorded varying degrees of teacher participation within an inquiry community due to "teachers' varying interests regarding teaching practice and the inquiry topic."

Most importantly, the current study adds substantially to the understanding on the influence of group dynamics on teacher learning within a TIC as it identifies one aspect of group dynamics that affected processes within it, which is teacher diversity. The study finds that teacher diversity could have both positive and negative effects on teacher learning within the TIC. On one hand, varied university teachers' educational, work, and teaching backgrounds enriched discussions on teaching and learning and led to the emergence of a wide range of knowledge. On the other hand, diversity in university teachers' current practice and contexts influenced their levels of participation and interest on topics or issues discussed. This was observed even when community members were all teaching a similar subject area, which was the English language and/or Communication Skills. This was because despite this similarity, university teachers within the TIC were teaching different components or skills of English and to learners who were at different levels of proficiency. As a result, some issues or dilemmas shared or discussed were more relevant to some university teachers than others. Content relevance, however, did not appear to be a problem when discussions revolved around general aspects of teaching and learning. Discussions became more relevant to only a specific group of university teachers when they revolved around issues or dilemmas

pertaining to the teaching of specific language skills or components. The current study thus suggests that serious considerations should be given to the aspects of teacher diversity in the formation of collaborative staff development similar to TICs. The study also suggests that the objectives of a teacher community has implications on the selection of members of a teacher community.

The findings on the practicality of teachers' individual actions and the relationship between knowledge relevance and teachers' levels of participation and individual knowledge processing also highlight the importance of matching content of staff development to teachers' immediate needs and current practice. As what teachers processed further was often found to be closely related to their current practice, content and objectives of staff development must relate to teachers' immediate concerns in their practice and revolve around issues and dilemmas prevalent within their teaching contexts. These findings also show that staff development needs to be unique to meet different teachers' needs. It further rebukes any form of staff development that adopts the one-size-fits-all approach since such staff development does not take into consideration teachers' unique needs, concerns, issues, dilemmas, and contexts. It also raises questions over staff development that is designed by external trainers or staff developers who are often oblivious of teachers' immediate needs, concerns, struggles, and contexts.

6.3.1.5 The TIC Needs the 'Right' People

This study adds understanding to the pool of knowledge on the characteristics of people that would make TIC work. The study finds that group processes within the TIC were supported by community members who were supportive, willing to share, empathetic, and critical of each other's sharing. It was this combination of positive characteristics of the teachers which made the environment within the TIC safe and

constructive for teacher learning. Without the 'right' people, in other words, the TIC may not have worked.

These findings suggest that to have collegial, safe, and supportive interactions to sustain teacher learning within a teacher community, having people with the right characteristics matters. This implies that the selection method of members for teacher communities is an important aspect to be seriously considered.

These findings also raise the important question of whether learning in a form of collaborative staff development like the TIC suits all teachers. The study suggests that perhaps community-based staff development, similar to the TIC, are more suitable for some teachers and not others. Prior to their participation in the TIC, all of the teachers reported seeking help from peers to solve their problems in practice. This could perhaps explain the reason these teachers volunteered to be part of the TIC: They enjoyed learning through their interactions with others. In other words, being within the TIC suited their approach to learning. This observation supports Opfer and Pedder (2011, p. 390) who state that "teachers will tend to seek out learning activities that are consistent to their orientation to learning." Taking into account the strategies that teachers employ to solve their problems or improve practice is thus one vital aspect that should be seriously considered when forming a community-based staff development programme like the TIC. Despite this, the study cannot conclude that staff development like the TIC would only be suitable to teachers who are social learners as teachers' orientation to learning may change and be influenced by context (Opfer & Pedder, 2011). However, it is suggested that teachers who form such communities need to be teachers who perceive interactions with peers as a valid platform to improve practice.

6.3.1.6 Various Factors Influence Teacher Learning

The study supports Zinn and Cafarella (1999) on the power of internal and external factors existing within teachers, the staff development, and the organization in supporting and hindering teacher learning within staff development. It particularly extends understanding on the impact of various factors existing within different contexts (the TIC, teachers, and their workplaces) on the sustainability of teacher learning within TICs.

The findings in the study show that sustainability of teacher learning was unique to each teacher due to the factors which existed within the contexts of the TIC, the individual teachers, and their workplaces. For some university teachers, despite their prolonged engagement in the TIC, their learning was found to be fragmented. They were unable to apply new knowledge acquired in one cycle to the following cycle due to work-related constraints. Continuity of teacher learning was only obvious when a teacher was given a similar subject and a new group of students with approximately similar levels of proficiency and backgrounds to teach in each cycle. When this occurred, the university teacher was able to reflect on similar issues or concerns and/or continuously experiment with a specific teaching strategy learned in different cycles within different classrooms.

The study also finds that sustainability of teacher learning, particularly teacher reflection, was affected by the instructional dilemmas shared. As teachers were generally pragmatic, their learning became an intermittent process as the sharing within the TIC was at times relevant to them but at times not. The study finds that this was not problematic as discontinuity of sharing did not have an obvious impact on the continuity of reflection. Teachers were able to reflect continuously on an issue or a dilemma, even though it recurred intermittently in different sessions within different cycles. What appeared to affect sustainability of teacher learning was the frequency of discussions on similar issues or dilemmas. This affected teacher learning in the TIC in two ways: It

resulted in teachers' continuous reflection and a cumulative understanding of the issues or dilemmas discussed, but at the same, it also affected teachers' motivation and individual learning, particularly if a specific issue or a dilemma that was repeatedly discussed in different sessions was not pertinent to teachers' current teaching contexts. These findings extend understanding of the impact of the content of discussions on the sustainability of teacher learning within TICs. The study also highlights the need for teachers to be repeatedly exposed to a similar issue or dilemma when participating in a TIC to ensure continuity of teachers' reflection and increase the probability of teacher change.

Sustainability of teacher learning was not only affected by workplace factors and the instructional dilemmas shared, it was also affected by administrative aspects of teaching (i.e., exam invigilation), which impacted some of the teachers' attendance to TIC meetings. Furthermore, it was also affected by external predicaments or biological factors (i.e., being involved in a road accident) causing some teachers' participation and learning to be further fragmented. These findings show that prolonged engagement within community-based staff development like the TIC may not guarantee sustained teacher learning as various factors impacted the process, fragmenting it into shorter learning durations, sometimes confining it within each cycle, as experienced by some university teachers within the TIC.

These findings also suggest that continuity of teacher learning, particularly their experimentation with newly learnt skills or knowledge, was in some ways dependent on the 'stability' of teachers' teaching contexts and needs (e.g., courses and students taught). The study also highlights the importance of stability of setting for learning, in this case, uninterrupted time for community meetings to improve sustainability in teacher learning within the TIC, an insight which was also reported in Ermeling (2010).

This study also adds to the understanding of factors which existed within the teachers as a powerful hindrance or supporting influence of their own learning. The study finds that factors within teachers were a powerful influence on teacher learning. Even though workplace factors were generally identified as obstacles to teacher learning within the TIC, it was observed that supportive factors within an individual teacher could overcome hindering factors within her workplace. In other words, when a teacher was supportive of her own learning, obstacles within her workplace did not become a hindrance. It was also found that teachers who were unwilling to negotiate their old beliefs, and/or were not supportive of their learning, would not process knowledge learnt further, even when they had ample time and space to do so. In this instance, the university teachers were the main obstacles to their own learning.

The findings of the current study show that supportive factors within the TIC, the individual university teachers, and their workplaces were vital to make the TIC work. The study also finds that to promote teacher change, having supportive staff development may simply not be enough. University teachers' workplaces have to also be supportive of teacher learning within the TIC because the processing of knowledge learnt within the TIC spilled over into their university classrooms. Most importantly, teachers have to be supportive of their own learning as without this vital support, their participation within staff development would be an insignificant effort.

6.3.2 Policy Implications

The current study has various implications on policies governing staff development in higher education. The study finds that an informal form of staff development like the TIC has a potential to be a worthwhile staff development effort. In most universities in Malaysia, however, only formal forms of staff development, which are run and developed by assigned staff developers, are considered as staff development.

To encourage the formation of the TICs within higher education, policies governing staff development should be made flexible so as to consider informal staff development like the TIC as a valid staff development effort for university teachers. Furthermore, recognizing teachers' participation in teacher communities as taking part in staff development may influence decisions pertaining to workload. This will ensure that participants within teacher communities would be given a reasonable workload and ample time for reflection and space to experiment on practice. This will also ensure that teachers will not be asked to do other work (e.g., teaching, test invigilation) during hours slotted for community meetings. Recognition of teachers' participation in teacher communities could also ease funding for community-based staff development and the training of staff developers for similar projects in different departments and faculties.

This study identifies the interconnecting influences within different contexts which affect teachers' application of knowledge learnt from the TIC to practice. As there were many factors which influenced this process, the study suggests that the evaluation of teachers' participation in community-based staff development should take into consideration various hindering factors which impacted teacher learning because without these considerations, such evaluation might be considered invalid. New policies on staff development, in other words, should take into account the gradual, challenging process experienced by university teachers who took part in community-based staff development. This requires a new definition of success and achievement within an institution and a close examination and full understanding of the processes that university teachers undergo in such staff development.

Traditionally, the perspective on the success of teachers' participation within staff development is measured by changes that teachers make in their practice as a result of their participation (Opfer & Pedder, 2011). However, because of the differences in each teacher's learning contexts, university teachers' success within staff development cannot

be determined only by focusing on observable changes to practice but must also be evaluated by looking at the processes that teachers have undergone. As factors within teacher learning contexts influence momentum, processes, and outcomes, it would be unfair to measure achievement by using the same yardstick for all university teachers. Assessment of the outcomes of university teachers' participation within collaborative staff development needs to be flexible. It requires a complete understanding of the contexts in which their learning occurs. Understanding the processes teachers undergo within collaborative staff development would require a continuous and comprehensive method of evaluation, requiring a series of assessments involving continuous close scrutiny of teachers' reflections, periodic observations of teacher's teaching, analysis of students' evaluations, and an evaluation of teacher learning contexts to understand existing constraints that could limit teaching learning. This, however, has to be done cautiously as teachers who form communities like the TIC may be anxious about sharing their practice if their sharing or contributions is scrutinized by others, particularly those who appraise them. This has a direct implication on the choice of staff developers who will manage, facilitate, assist, and 'evaluate' teachers' participation in a teacher community.

As teachers' participation within community-based staff development requires long-time engagement and processing of knowledge that spills into teachers' classrooms, new policies are required regarding the reward system for teachers who take part in teacher communities. To encourage teacher participation within a collaborative teacher learning effort, teachers have to perceive their participation as worthwhile (Blackwell & Blackmore, 2003). Participating in community-based staff development which requires prolonged and rigorous engagement of teachers will not be a popular choice if many view it as futile and unrewarding. A positive impression and a reward system which supports teachers' initiatives to improve teaching within collaborative staff development efforts

are thus vital. When this happens, teachers may view teacher learning as an activity that is rewarding and beneficial, and this may increase their motivation to take part in such staff development and increase their flexibility, confidence, and motivation towards learning and change.

6.3.3 Management Implications

The findings of this study also have important implications on the management of community-based staff development like the TIC and also more specifically, on the management of TICs in higher education institutions. The following discussion addresses implications of the study on managing and facilitating a TIC.

6.3.3.1 Managing a TIC

The first implication of the study in managing a TIC is on the choice of candidates for staff developers of a TIC. Because of the complex nature of teacher learning within a TIC, it is suggested that the best candidates for staff developers for such a programme are peers or colleagues to participants in a TIC. Having peers as staff developers (or peer developers) for a TIC is important because they will have a good understanding of the contexts of learning within participants' workplaces, for example, the kinds of programs they run, the types of students they have, the unique challenges they face in teaching, and the contextual constraints that are exclusive to their teaching contexts. This insider knowledge is valuable as it will help peer developers in managing and facilitating teacher communities, providing appropriate support and tools, and when evaluating teacher learning experiences.

When forming a teacher community, peer developers should take into consideration the aspects of diversity and their impact on participation and the importance of having the 'right' people to ensure a safe and supportive learning environment within

the community. To attract teachers with the 'right' characteristics to form a teacher community, however, membership of the TIC cannot be forced. Teachers have to volunteer be part of the community. Recruitment on a voluntary basis may attract teachers who are like-minded and who are serious about improving their teaching. It may also attract teachers who are constantly looking for opportunities to learn and who are willing to sacrifice their time for learning. Such teachers are valuable to staff development programmes like the TIC as they will be motivated and driven. Furthermore, since teachers choose to be part of the community, this, in its truest sense, would facilitate the gathering of teachers who are open to sharing and disclosing practice. If membership is forced, university teachers may have high inhibitions about sharing as they may feel that they are part of the community because of the problems that they have in teaching. Furthermore, when membership is forced, there is a likelihood that the learning environment within the community could become hostile.

In gathering members to form a TIC, peer developers should be aware of the effects of diversity on teachers' participation. Membership of a TIC should be diverse in terms of educational background and teaching and work experiences. However, it should be limited to an exclusive group of teachers if the objective of the teacher community is to improve their pedagogic skills in teaching a specific skill or knowledge component that is only relevant to their teaching contexts. In the context of English language teaching, for example, a TIC can be comprised of teachers who are generally teaching similar language skills or components to students with somewhat similar levels of proficiency and backgrounds. This will ensure the merging of different ideas and opinions on issues shared that are critical to reflection, but most importantly, it will increase the probability of the sharing of knowledge that is relevant to teachers' current needs and contexts. This may have a positive impact on teachers' participation as it may increase the probability of knowledge being selected and processed further.

Peer developers need to also ensure the availability of supportive elements within the teacher communities that they manage. They need ensure that a protocol which promotes reflection, inquiry, and experimentation on practice and encourages the sharing of evidence of practice is in place. They also need to employ the use of a reflective tool to help teachers internalize knowledge learnt, encourage the sharing of evidence of practice, provide relevant external sources to substantiate discussions, and pave ways for an open but critical discussion on teachers' practice. To ensure that the processes teachers undergo will result in changes to teachers and their practice, peer developers must also encourage teachers to take part in open discussions in which their old practices or beliefs are negotiated. This is to create doubt over past beliefs and practices which has been found to be essential to teacher change as it is a catalyst to deeper reflection and evaluation of one's practice.

The findings of the study highlight the importance of repetitive exposure to similar issues to ensure teachers' continuous reflection on them. This suggests that there is perhaps a need for peer developers to guide teachers' discussions within collaborative staff development like the TIC into specific themes so that teachers will be continuously exposed to similar dilemmas or issues. This could further constrict topics and discussions; however, it may lead to repetitive exposure to a similar issue or dilemma, which may result in teachers' continuous reflection on specific topics or areas of teaching and learning. This may lead to a more meaningful impact on teachers and their practice.

The study finds that vague and general instructional dilemmas shared within the TIC had a negative impact on knowledge generation and sharing. To ensure that instructional dilemmas shared are specific and clear, peer developers could brief participants on the importance of sharing instructional dilemmas that are specific and clear within the community. Peer developers could also produce a standard form which participants are given options to complete to record details of their dilemmas. Before

sharing dilemmas with community members, a peer developer could go through the completed forms and request further information from a participant if a recorded dilemma is still unclear or too general. These steps will ensure that the instructional dilemmas shared within the TIC are focused and are not general and ambiguous. (View Appendix I – Reflective form on instructional dilemma)

Peer developers should also ensure that relevant external sources, for example, journal articles are brought into the TIC to support teacher learning within it. External sources should not be randomly introduced within a discussion because this would affect the mechanism enforced within the community. Knowledge from the journals, in other words, should not become the central focus. The main source of knowledge should still originate from teachers' inquiry, reflection, and exploration of dilemmas. Appropriate academic journals should only be introduced after a thorough discussion on a dilemma is carried out and after teachers' experimentation on practice. External sources containing extra information on a specific dilemma or a teaching strategy previously discussed should only be supplied to substantiate and support teacher learning within the community. They should be brought into the discussions to make the discussions on dilemmas or teaching strategies more concrete.

6.3.3.2 Managing a TIC within a Higher Education Institution

The existence of multiple factors within different contexts and the interplay between these factors has a strong influence on the processes within community-based staff development, making it a complex, challenging process. What makes teacher learning more complex are the possibilities that the factors within the three different contexts (staff development, workplace, and individual teachers) may occasionally change. Any changes to the factors within teacher contexts may bring instability and new challenges to teacher learning within community-based staff development like the TIC.

Maintaining a supportive environment for community-based staff development thus requires a constant synergistic effort from top decision makers, deans of faculties/heads of departments, peer developers, and the individual teachers. This challenging effort seeks combined and continuous support from each party and it requires all parties concerned to meet in the middle. This is important as it will give a chance for decision-makers to "visit the site" and understand what is happening within different faculties and for others involved at the faculty or department level to "go up" and hold meetings with policy makers to be better informed about policies on staff development and organizational constraints which could affect teachers' participation within teacher communities. This could also be a platform for peer developers and university teachers to voice their concerns over workplace factors that are beyond their control but are affecting their learning.

Collaborative initiatives between concerned parties will ensure that everyone is on the same page, is moving in a similar direction, and is achieving the same goals. By "engaging participants in a dialogue about achieving desired outcomes of change" (Smyth, 2003, p. 55), policy makers could align the institutional objectives with those of the academicians. Such sharing is vital for concerned parties as this could help them in finding ways to optimize learning within community-based staff development like the TIC by reducing constraints within the different programs situated within an organization.

6.3.4 Methodological Implications

The study finds that analysing a multifocal perspective, the individual university teachers and the teacher community as two different units of analysis, as suggested by Borko (2004), helped in understanding the complex learning processes taking place within the TIC. This study thus suggests that to understand teacher learning in a

community-based staff development like the TIC, it is vital that both units, the teacher community and the individual teachers, are analyzed.

The qualitative case study approach employed to understand teacher learning within the TIC generated an abundance of data in the area investigated. This shows that the use of multiple data collection tools as prompted by the approach employed worked at uncovering valuable information and knowledge to understand a complex, situated activity such as teacher learning within an inquiry community situated within a higher education institution. This study thus supports the use of a qualitative case study approach in understanding teacher learning within a community-based staff development programme like the TIC, as reflected in previous studies (e.g., Crockett, 2002; Curry, 2008; Ermeling, 2010; Little, 2002; Miller, 2008; Roblin & Margalef, 2013; So, 2013; Zellermayer & Tabak, 2006).

Another methodological implication is on the use of situated learning theory to understand teacher learning processes within the TIC. The study finds that analysing the context, tools, and interactions was vital for understanding the complex processes occurring within the TIC, the powerful factors within different contexts and their effects on teacher learning, the functions of tools in supporting teacher learning, and the power of teacher interactions in generating knowledge and inducing teacher change. This suggests that to gain a thorough understanding of the processes of teacher learning within community-based staff development like the TIC, taking a situative perspective to investigate contextual influences, tools, and interactions is a possible option.

6.4 Recommendations for Future Research

There are a number of recommendations for future research in the area of community-based staff development efforts like the TIC. The findings of this study suggest that there is an interplay between multiple factors which exist within the context

of the teacher community, the individual teachers, and the organization which affect teacher learning and the outcome of teacher participation. More studies are thus needed to understand the complexity of collaborative teacher learning and the multi-causal factors which exist within the work environment, teacher community, and teachers that affect teacher learning. Future studies conducted in the area, in other words, should investigate both the micro (individual teachers and individual activities and programs) and the macro context (the organization) in order to understand the processes within collaborative staff development taking place at the workplace and their impact on teacher learning and teacher change (Opfer & Pedder, 2011). It would also be interesting to explore how different collaborative staff development programs thrive or fail by analysing the various factors that influence the processes within each. A better understanding of contextual factors and their effects on the processes within teacher communities will increase one's understanding of the best conditions in which such staff development will be conducive and effective. This may lead to the formation of better and more resilient teacher learning communities in the future.

Studies should also be conducted on higher education institutions that run successful community-based staff development programs. Such studies which focus on understanding the organizational context will require the analysis of institutional policies, systemic approaches to staff development, and available support systems to understand how the context supports the formation of communities of practice and learning within these communities. Studies should also be conducted to explore successful collaborative staff development that takes place within a punitive organizational context. The study also finds that teacher learning taking place within the TIC was influenced by environmental factors, such as teachers' workplaces. This suggests that to gain a thorough understanding of the learning processes occurring within the TIC, the perspectives of those who manage and run the various university programs which teachers are part of

should be taken into consideration. Doing so would add understanding to the complexities of managing community-based staff development within faculties and sustaining teacher learning within such endeavours.

Comparative studies on methods of 'evaluation' to understand teacher learning outcomes within different collaborative staff development programmes are also highly sought. The measurement of success of teachers taking part in teacher learning communities is difficult to gauge as outcomes are personalized to the individual teachers. Findings from such studies will thus be very valuable, providing guidance on ways to understand and 'evaluate' teachers' participation within teacher learning communities.

More studies that attempt to understand the connections between teachers' learning styles with their participation in community-based staff development are also important. This is because there is very limited evidence in the literature which examines how teachers' learning styles impact their participation within community-based staff development like the TIC. Such studies will provide vital information that could guide staff developers in selecting participants for teacher communities.

Another area that should be further researched is the tracing of the impact of teachers' participation within collaborative staff development to their practice. The present study only managed to trace teacher change from evidence of practice or classroom artifacts shared within the community and teachers' sharing through oral narratives and interviews. Furthermore, the study did not examine teacher change from the perspective of the students. Future studies should thus attempt to trace the impact and the depth of teacher change and correlate teacher change to student learning. Perhaps, in the future, careful examination of teachers' practice should be made before and after their participation within such communities and opinions from the students should be gathered to understand how teachers' participation with a collaborative teacher effort impact teaching and students' learning.

6.5 Conclusion

As higher education becomes a significant entity in the global arena, striving towards achieving quality teaching in higher education has become crucial. Teaching determines and influences students' learning experiences, processes, and outcomes and it, in some ways, determines the kinds of graduates produced. To stay competitive, universities have to ensure that their graduates are of the highest quality. For this to occur, teaching taking place within university classrooms needs to be of the highest quality. To achieve such a high standard, reconsidering the ways university teachers are developed at universities is a must. Community-based staff development, such as the TIC, is one form of staff development that should be seriously considered as it is to a certain extent effective in making university teachers think about their practice, consider their old beliefs, and make adjustments to their teaching. Such initiatives, however, require support from all parties: the universities, faculties, departments, the teacher community, and the individual teachers. Only when support from all parties is collective and continuous will there be evident changes to the quality of teaching in university classrooms.

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APPENDIX A

Observation Protocol

Name of Attendees:

Observation Site:

Purpose of Observation:

Date/ Day:

Time/ Duration:

Description of the following:

1. **Place/surrounding, environment, ambience and facilities**:

2. **The activities**

- Types of problems raised- Assessment? Students' work? Pedagogy? Work ethics? Classroom management? Students' behavior? Time management? Subject content matter?

- Questions asked- Did the questions ask help to reveal details of the problems? / What kinds of questions were asked?

- Responses given- Did the responses given reveal problems in practice? / How did teachers respond to one another?

- Nature of the discussion- Was it stressful, relaxing, collegial or tense?

- Interactions- Were they tentative, harsh, authoritative, collegial or congenial?

- Conflicts- Were there conflicts? If yes, how were these addressed?

- Evidence of practice shared- How did it influence interactions on dilemmas?

- Action plans- Were they realistic, manageable or burdensome? / How did the teacher with the dilemma react to the suggestions given?

3: **Conclusion: Group Achievement of this session?**

APPENDIX B

Qualitative Questionnaire (Researcher-Generated Document)

Name: _____
Date: _____
Time: _____
Session no: _____

_____

___

Dear Participants,

The objective of this qualitative questionnaire is to capture your experience learning in the inquiry community. Please answer the given questions as truthfully as possible. When answering the questions, reflect on your experience being in the inquiry community in today's session.

Part A: Opinions about session

1. Describe what you think of today's session. (Describe the atmosphere and your general perception; was it a success, a failure, interesting, a waste of time etc.?)

2. Can you describe your experience of being in today's session? What strikes you as the most **interesting**/ the most **disturbing** experience being in the session?

Part B: Opinions about learning in the inquiry community

3. What have you learnt from the session? Did you learn anything new in the session? List down the new things (it can be skills, knowledge, values) that you have learnt in today's session.

Part C: Opinions about possible knowledge transfer

4. Explain how your learning of new skills, knowledge or values (identified in Question 3) may impact your instructional practice.

5. Are there any elements within the context of the inquiry community that you think may **hinder** or **promote** learning/ construction of knowledge?

Part D: Any other matters

6. State any other matters here:

APPENDIX C

Document Summary Form

Site:	
Document:	
Data received/ picked up:	

Name or Description of Document(s):

Event or contact, if any, with which document is associated:

Brief Summary of Contents:

APPENDIX D

Interview Protocol (Pre-Project)

Interview:
Interviewee:
Site:
Contact Date:
Time started:
Time ended:
Purpose:

Part A: ***Getting started - Rapport building***

- Participant's rights & confidentiality
- Explanation of purpose of interview

Part B: ***Probing (Participant's background, qualification, family, job/job scope, roles, interest, etc)***

1. How long have you been teaching?
2. Can you please describe your teaching experience?
3. How do you describe yourself as a teacher?
4. What are your beliefs/ philosophies about teaching?
5. What are your beliefs about students' learning?
6. What have you done so far to improve your teaching practice/ your students' learning?
7. Do you face problems in teaching? What aspect of your teaching do you think is problematic?
8. What strategies do you employ to overcome the problems that you face in teaching?
9. Do you seek help from others when you face problems in teaching? Does this help?
10. Others

Part C : Concluding the interview

- Additional information
- Appreciation

APPENDIX E

Interview Protocol (Post-Project for Cycle One)

Interview:
Interviewee:
Site:
Contact Date:
Time started:
Time ended:
Purpose:

Part A: ***Getting started - Rapport building***

- Participant's rights & confidentiality
- Explanation of purpose of interview

Part B: ***Probing***

1. Could you describe your experience of being an Inquiry Community (IC) member?

2. Can you describe your learning experience within the community?

3. Do you think that the context of IC promotes or hinders learning?

4. What were the elements of the IC that promotes learning?

5. What was the possible interference within the group that could hinder learning?

6. Have you ever felt offended by any suggestions or remarks made?

7. In what way can you describe the interactions in the IC? Did it help or hinder learning?

8. How did the context of teacher learning within IC differ from learning within other staff development?

9. How would you normally have approach the problem that you have raised?*

10. When considering suggestions given by others, what would be the most abided criteria?

11. Do you think that the tools/ evidence of practice shared could hinder or promote learning or understanding?

12. Could you tell me which of the IC meeting was most memorable to you? Why?

13. Can you describe any changes in your instructional practice or beliefs about teaching / learning after being an IC?

14. Do you think that your institution support such teacher learning platform?

15. Others

Part C : ***Concluding the interview***

- Additional information
- Appreciation

APPENDIX F

Interview Protocol (Post-Project for Cycle Two)

Interview:
Interviewee:
Site:
Contact Date:
Time started:
Time ended:
Purpose:

Part A: ***Getting started - Rapport building***

- Participant's rights & confidentiality
- Explanation of purpose of interview

Part B: ***Probing***

1. What do you think of your experience being in the IC so far?

2. Did you learn anything beneficial (skills/ values/ knowledge) from the sessions?

3. How did new knowledge/ skills/ surfaced? How did you learn this new knowledge/ skills/ values? (through reflection/ from disclosure etc.)

4. Can you explain/ describe some of the things that you have learnt from the sessions?/ (if it is stated that no new things were learnt from the session, inquire why)

5. Did new knowledge/ skills/ values learnt change your teaching/ approach/ style or change classroom management/ ways dealing with students etc.? If yes, please describe the changes. If not, why?

6. What aspects of the IC promote learning?

7. What was the possible interference within the group that could hinder your learning?

8. When considering suggestions given by others, what would be the most abided criteria?

9. Could you tell me which of the IC meeting was most memorable to you? Why?

10. In what ways can your experience in the IC be improved?

11. Others

Part C : ***Concluding the interview***

- Additional information
- Appreciation

APPENDIX G

Interview Protocol (Post-Project for Cycle Three)

Interview:
Interviewee:
Site:
Contact Date:
Time started:
Time ended:
Purpose:

Part A: ***Getting started - Rapport building***

- Participant's rights & confidentiality
- Explanation of purpose of interview

Part B: ***Probing***

1. What was your main motivation for joining IC?
2. Was your expectation met? How/ Why not?
3. Which of the cycle did you think you learn most from? Why?
4. Can you describe your experience being in the IC?
5. Can you describe how you think you learn in the IC?
6. In your experience of being in the IC, how/ when new knowledge surfaced?
7. What kinds of knowledge or skills or values that you learn in the IC that you have practiced in your own classroom?
8. Do you experience an increase in awareness about certain aspects of your teaching and learning? If yes, can you describe it? How does this new awareness affect your teaching?
9. Do you develop any new teaching habits?
10. Are there any changes to your perception about teaching and learning after your participation in the IC? How do you perceived teaching/ learning now?
11. In your opinion, what were the elements that impact your learning in the inquiry community? (individual/ community/ context)

12. In your opinion, what were the elements that impact transfer of knowledge to your practice?

13. Would you take part in such effort in the future if there is one implemented at your workplace? Why or why not?

14. Others

Part C : *Concluding the interview*

- Additional information
- Appreciation

APPENDIX H

Informed Consent

Title of Research: Teacher Learning in an Inquiry Community: A Case Study at a Private Education Institution in Malaysia

Investigator: Ann Rosnida Md. Deni

It is important that the explanation of this study is read before agreeing to participate in this study. The explanation below describes the purpose, procedures, benefits, risks, discomforts, and precautions of the project. Also described is your right to withdraw from the study at any time. No guarantees or assurances can be made as to the results of the study.

Purpose

You are being asked to participate in the research project that is carried out to explore teacher learning in an inquiry community. The inquiry community is formed for the purpose of improving instructional practice and to provide a sustainable learning platform for the teachers.

Explanation of Procedures

The approach of the research is exploratory case study. Participants of this study will be required to meet once every week to carry out inquiry into their teaching practice. The activities of each meeting will be governed by a protocol and they are as illustrated in the diagram below:

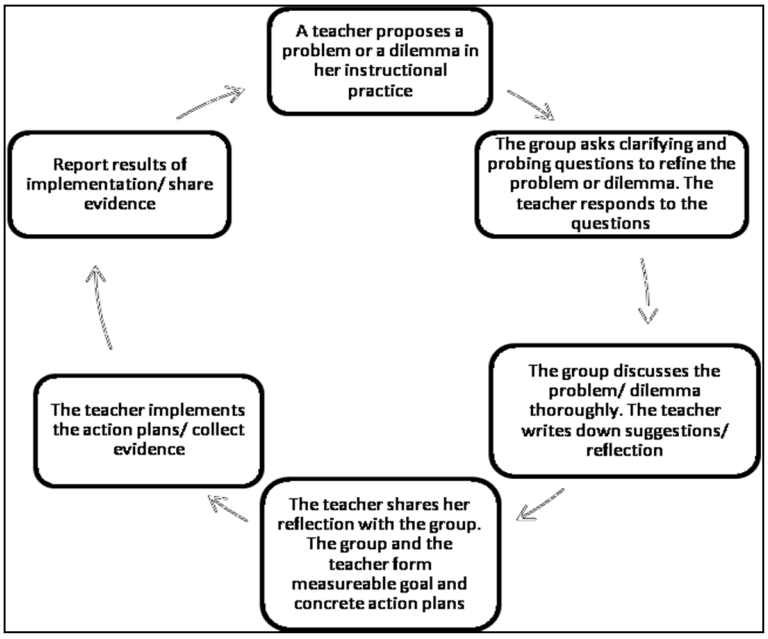

Figure 1: The cycle of inquiry in the teacher inquiry community

To assist in the process of inquiry, teachers are required to bring evidence of practice to the meeting. Evidence of practice can range from students' work, evaluation sheets, video-recording of teaching to course materials that are used in class.

Each participant will be required to complete a qualitative questionnaire after every meeting in which he/she will record his/her experience learning in the inquiry community. Another qualitative questionnaire will be required to be filled up for each participant to record changes that are taking place in her own classroom as a result of being the member of the inquiry community.

All meetings will be observed by the main investigator and will be audio-recorded. Each meeting may last from 1.30- 2 hours depending on the nature of the problems raised and discussed. Based on answers given in the qualitative questionnaire and the investigator's observations of the inquiry community meeting, focused interviews may be carried out on some participants in order to further understand the process of teacher learning in an inquiry community and the impact of such participation on instructional practice.

Meetings will be conducted every Friday starting on the 1st of April to the 8th of July 2011. Meetings of the inquiry community will resume on the 22nd of Aug to the 2nd of Dec 2011. The third cycle of the meetings will begin on the 13th of January to the 17th of March 2012.

Confidentiality

To protect the privacy and the confidentiality of the participants, throughout the study the identities of the participants will remain anonymous as each will be assigned a pseudonym. Any references to your identity that would compromise your anonymity will be removed or disguised prior to the preparation of the research reports and publications. Audiotapes/videotapes will be destroyed or erased at the completion of the study. All information gathered from the study will remain confidential and will not be disclosed to any unauthorized persons.

Benefits

Taking part in this research will partly fulfil a participant's professional development requirement (when 80% of the attendance requirement is fulfilled). This research is also expected to provide a platform for the exchange of teaching knowledge and skills that may influence participants' instructional practice.

Costs and/or Payments to Subject for Participation in Research

The participants will not be paid to take part in this research project. However, complimentary lunch and refreshments will be available during each inquiry community meeting.

Withdrawal without Prejudice

Participation in this study is voluntary; refusal to participate will involve no penalty. Each participant is free to withdraw consent and discontinue from taking part in the research.

Participant's initials: Date:

(This consent form is adapted from: Samford Education website. (n.d.).
Retrieved from:http://www4.samford.edu/IRB/FocusGrpEx.pdf. Accessed on 12th of January 2011)

APPENDIX I

Reflective Form: My Instructional Dilemma

Report made by: _____

Date: _____

(This form is to be completed by a member before he/ she shares an instructional dilemma with the community).

_____

Instructions: Write the description of your dilemma below as clearly as possible. This can help your community in giving you appropriate support and comments.

1. What is happening in your classroom/ teaching that is bothering you? Why does it bother you? (This could be an occurrence/ occurrences in your classroom or a thought about your teaching/ students/students' learning that bothers you).

   _____
   _____
   _____

2. Why do you think this problem occur? What do you think is the root cause of your instructional dilemma?

   _____
   _____
   _____

3. (Answer this question if you have attempted to solve the problem on your own. If not, please skip this question and go to question 4.)

   What have you done so far to overcome/ solve your instructional dilemma?

   _____
   _____
   _____

   - What was the outcome of your action/ actions?

     _____
     _____
     _____

   - What was the impact of your action(s) on the problem? Did it improve, become worse or remain the same/unchanged?

     _____
     _____
     _____

- Why do you think the strategy/ strategies used did not work as you have expected?

  _____
  _____
  _____

4. What questions do you have about your dilemma/ instructional problem? Write your questions below.

   _____
   _____
   _____

5. Specify what you would like to achieve out of the discussion on your instructional dilemma.

   _____
   _____
   _____

6. Others: (Please specify other information that you think is important about your dilemma)

   _____
   _____
   _____
   _____
   _____

   Thank you!